CURRENT NOTES

Your Monitor on the World of Atari

Vol. 12, No. 7

September 1992
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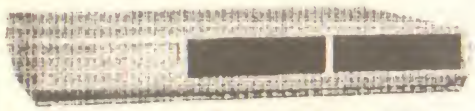

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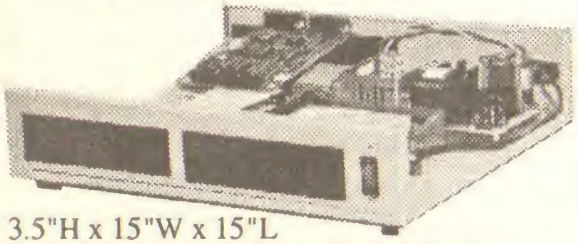

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AtariFest '92 is presented by the Washington Area Atari Computer Enthusiasts

Current Notes (ISSN 8750-1937) is published monthly (excluding January and August) by Current Notes Inc. 122 N. Johnson Rd, Sterling, VA 20164 (703) 450-4761. Direct subscriptions in the U.S. to Current Notes are available for $27/year (see below). Second Class postage paid at Sterling, VA and other offices.

POSTMASTER: Send address changes to Current Notes, Inc., 122 N Johnson Rd, Sterling, VA 20164.

PUBLISHER: Joe Waters, 122 N Johnson Rd, Sterling VA 20164 (703) 450-4761. GENIE: JOE.WATERS

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CN COLUMNISTS: John Barnes, Richard Gunter, Mike Heininger, Brian Miller, Rick Reaser, Dave Small, Frank Sommers, David Troy, Sam Wright, Andrzej Wrotniak.

Articles or review material and press releases should be sent directly to the appropriate editor. Deadline date for articles is the 1st of the month.

SUBSCRIPTIONS: $27 per year ($44/2 years). Foreign surface subscriptions are $35/year ($60/2 years).

AIR MAIL RATES: Canada/Mexico $44; Cen.Am., Caribbean, $57; S.Amer. Europe, N.Africa, $69; Mid East, Africa, Asia, Australia, $80. Foreign subscriptions are payable in US $ drawn on a US bank.

Send check, payable to Current Notes, to CN Subscriptions, 122 N. Johnson Rd., Sterling, VA 20164. NOTE: VISA and MasterCard accepted. Call (703) 450-4761.

ADVERTISING MANAGER: Joyce Waters, 122 N. Johnson Rd, Sterling VA 20164 (703) 450-4761. Full page ads, $140-$180; half page, $80-$103; third page, $55-$75; quarter page, $43-$57. Call for details.

BACK ISSUES: 1987/88 ($1.50 ea), 1989, 1990 ($2.00 ea), 1991 ($2.50 ea), 1992 ($3.00 ea).

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NEWS/ANNOUNCEMENTS

DEPARTMENTS

MOVING?

Don't forget to send in a change of address notice if you are moving. *Current Notes* is distributed via second class US mail. The post office does not forward second class publications; they throw them away.

The cover: This spectacular bee, produced with Spectrum, is one of the fine pictures our current generation of Atari ST/Mega computers can generate and show. We are all now anxiously awaiting the pictures the new Atari Falcon 030 will display. Photo by Mike Heininger, (c) 1992.

ATARI SHOW ANNOUNCEMENTS

August 23–24: Dusseldorf Atari show.

Look for Atari to unveil the Falcon at this huge Atari show in Germany. Third party vendors are also expected to unveil a number of new Atari–related products. CN will provide full details in our October issue.

September 12–13: The Glendale Show

Southern California's Atari Faire has had the largest annual attendance of any continuing show series. Version 6.0 of this show will be held at the Glendale College Auditorium as in past years. For more information about the Glendale Show, contact John King Tarpinian at 818–246–7286 or leave Email on GEnie to JOHN.KING.T.

September 19–20: Montreal AtariFest

Festival Atari de Montreal et Environs – FAME – will be holding an Atarifest from 10 a.m. to 5 p.m. both days. The event will be held at the Monkland Centre, N.D.G., 4410 W. Hilla Avenue in Montreal, Quebec, Canada.

September 23: Falcon Intro to US

Atari will unveil its new Falcon 030 at the meeting of the Boston Computer Society scheduled for September 23 at 7:30 pm in the New England Life Hall in the Copley Square Building, 225 Clarendon St., Boston, MA.

October 10–11: The WAACE Atarifest '92

The largest east coast Atarifest will be held, once more, at the Sheraton–Reston Hotel, 11810 Sunrise Valley Dr, Reston VA 22091 from 10am – 6pm Saturday and Sunday. For more information contact Charles Hoffmann at 703–629–6734.

October 24: Atari Safari '92

The Houston Atari Computer Enthusiasts are sponsoring their third annual computer show, the largest show in Texas and surrounding States. Call Harold Galley (713) 988–4772 for more information.

November 16–20: Fall COMDEX

The biggest computer trade show in the USA is held, once more, in Las Vegas, Nevada.

December 12–13: No. CA Atari Expo

The Northern California Atari Expo will be held at the San Jose Exhibit Hall, 145 W. San Carlos, San Jose, CA. For more info, call (510) 352–8118 or send Email on GEnie to M.WARNER8.

From the Editor's Desk

by Joe Waters

Anyone familiar with computer technology is aware that this is an area where we have seem dramatic, and continuing, changes. But, I suggest, we are now entering a period where there is going to be an even more dramatic shift in what is considered "mainstream" personal computing.

In the Intel world, we have watched the first 8088–based computers move to the 8086, the 80286, the 80386, and now the 80486. IBM followers will remember the PC, the XT, the AT, and the PS/2 series of computers. They may not want to remember the 3270 PC, the PC Jr., and the IBM PC portable. Apple advocates have seen the Apple, Apple II, Apple III, Lisa, Mac, Mac Plus, Mac SE, a whole host of Mac II models, and the Quadra. Atari owners have seen the 400, 800, 800XL, 800XE, 130XE, 520 ST, 1040ST, Mega ST, 1040 STe, Mega STe, TT, and, soon, the Falcon. These lists don't even include all the models that have been introduced. Similar product evolutions can be cited for Commodore, Tandy, and other companies.

Obviously, there has been a lot of change, a lot of "new" models introduced. Why should this period be any more significant than a year ago or two years ago?

Atari owners are well aware that the move from the 8–bit Atari to the 520 ST marked a major change in Atari's computing platform. Although there were a lot of 8–bit models, they were all, essentially, the same technology. Each new model introduced only minor improvements. The same is true of the ST/Mega line. We have seen several succeeding new product introductions, but they all, by and large, represented the technology first introduced with the Atari 520ST. The Falcon, with its 68030 CPU and MultiTOS operating system, is the first in Atari's next generation computers.

On the Intel side, the change coming is also going to be dramatic. If you purchased an IBM AT six years ago and an IBM PS/2 last year, from a user's perspective, there would be very little different in these machines. Running DOS–based programs, the new machines would perform much faster than the older ones (faster CPU, faster hard drives, better monitors), but *dBASE*, or *Lotus 123*, or Microsoft *Word*, would all work essentially the same way.

Two things have happened this past year to make a dramatic change in the mainstream PC marketplace. Microsoft has introduced Windows 3.1 and this program, which puts a graphical user interface on the mainstream PCs, has taken over the market. Windows has been around for some time, and people have purchased it since it was first released. However, they didn't often use it. On all but the fastest, newest generation PCs, the system was just too slow. It was far more productive to just switch back to DOS to get your work done. And the fastest, newest PCs were, of course, *very* expensive and relatively rare in the vast PC marketplace.

Because of the recession, or whatever the cause, the price situation has changed significantly in the past year. PC prices have been reduced some 40 to 50 percent. Even in a fast–moving technology area, this is a huge drop in prices in a single year. 386–based computers, complete with color monitors, hard drives, and software, can be had for about the same thing early Atari pioneers paid for the 16K Atari 800 computer with disk drive. A 33 Mhz 486 PC, with 8 Mb of memory, a 200+ Mb hard drive, a super VGA color monitor, and, of course, some software thrown in, can be had for well under $3,000. This kind of machine is very fast.

This combination of maturing of the PC Windows software and the dramatic drop in price of muscle machines means that a fast, efficient graphical user interface on the PC is not only possible, it is becoming standard. In addition, we will see a new multi–tasking operating system from Microsoft that competes with IBM's OS/2 and starts tapping the power inherent in the design of the 386 and 486 Intel chips. In the coming year, windows applications will take over the market as users move to these new machines. Users who still have 286 or older technology will find that they can't run the new operating systems or the new "graphical" applications. The value of their computer systems will drop as dramatically as did the value of the Atari 8–bit computers.

Atari ST/Mega owners will not be as impressed with all these developments as PC owners. Their monitors do, indeed, look very nice. But we have enjoyed a graphical user interface, and graphically–based application programs, for years. In addition, those used to the Atari, or Mac, interfaces will find Windows (or IBM's Presentation Manager) rather clumsy and inelegant.

Similarly, no Atari owner will be overly impressed with the speed of 386–based systems running a graphical application. His Atari, particularly with third–party accelerators, is pretty darn fast itself. Even 486 systems won't be able to leave the Mega STs, boosted with the third–party 68030 boards, behind in the dust.

Now, we wait for the arrival of the next generation Atari, the Falcon. It promises to be compatible with our current investment in ST/Mega software, but what new wondrous capabilities will it allow? Only time will tell. It has been designed with an internal direct processor slot for 386SX PC emulation. So, Atari owners can work in both their traditional Atari world as well as the more dominant PC world. The Gemulator, previewed in this issue, also gives Atari owners a choice on how to work in both worlds with a single computer.

Many questions about the new Falcon remain, but they will have to wait for awhile. We will bring you complete coverage of the German introduction of the Falcon next month. Stay tuned to *Current Notes* for complete coverage of this transitionary period.

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Letters to the Editor

Forbes Trashes Atari

Dear Editor,

I was surprised the other day in reviewing the posted messages on the GEnie ST Bulletin Board that there wasn't any mention of the Forbes Magazine article on Atari Corporation (Forbes, August 3, 1992 entitled "Cheap Didn't Sell," by Dyan Machan). Perhaps for those of us who have closely followed the fortunes of Atari through magazines such as yours, the thrust of this article was really not surprising. Permit me to highlight the more salient points for those who may have missed it.

At one time Atari, while under Warner Communications, employed 10,000 people worldwide with sales over $2 billion. After problems with poor-quality computer games, Jack Tramiel was able to buy the company from Warner in 1984 for $240 million in promissory notes. To his credit, he built sales back up to just under $500 million (after a $500 million loss in 1983).

Last year sales were $258 million. First quarter 1992 losses were $14 million on $44 million in sales and second quarter sales are due to be far worse. Twenty-seven (27) executives have either resigned or been fired in the past 30 months.

The article goes on to say that Jack Tramiel made a common mistake. "He tried to duplicate a past success under very different market conditions." He sought to capitalize on his European contacts from his Commodore days but alienated European software producers for the ST line by giving away pre-packaged software with sales of the machines. With any advantage of software selling the hardware beginning to fade for the ST, PC computer makers such as Dell, Leading Edge and others were able to begin successfully selling inexpensive machines in Europe. Last year, Atari's European sales dropped to $209 million from $342 million in 1990. Of course, Apple and Commodore were busy locking up shelf space in the U.S. market.

The plan to have Federated Group act as Atari distribution outlets proved to be another costly error. Paying $67 million for the chain in 1987, Tramiel put his youngest son, Garry, in his mid-twenties, in charge. Apparently, he wasn't up to the task because a year later Federated lost $124 million and Atari closed the stores.

In videogames, Atari spent $300,000 promoting its 7800 system. Nintendo and Sega spent $15 million each promoting theirs to gain 80% market share.

The Lynx in 1989 was a far superior machine to the competition. However, Tramiel had cut his software development down so much that the Lynx only had four or five games to Nintendo's more than 80. Atari spent next to nothing on national advertising (where have I heard this before?!) resulting in Nintendo's Gameboy garnering 80%+ of the market.

The Tramiels seem to operate the company under a penny wise pound foolish philosophy. For example, the senior Tramiel is reported to personally check expense reports to see that restaurant gratuities don't exceed 15%. (His income undoubtedly vastly exceeds whatever minor dollar benefits might accrue. Sounds analogous to Nero fiddling while Rome burned.)

The Falcon 030 is due out within the next twelve months as well as the latest videogame console, the Jaguar. However, the article points out that to have any real chance of making an impact, promoting these products would require close to $40 million. That is almost all of the cash Atari has. Indeed, the company needs $24 million just to cover its annual overhead. So what are we looking at? Another great product killed by lack of promotion?

The article concludes with a quote from a company insider, who says, "The Tramiels are not stupid. But their formula for success worked only once. They are not adaptable people."

After 14 years on Wall Street, I have to say that it is a relatively rare situation to have a company which had such a vastly superior product (the ST in 1985) and in spite of it, blew whatever competitive edge it had through gross mismanagement. Here it is seven years after the introduction of the ST and its unique GUI (graphical user interface), and the hot topic of conversation is Windows for the PC ... seven years later! Atari had a fantastic lead and simply watched it evaporate.

In my opinion, the best thing the Tramiels could do is to follow the example of Steve Jobs when he hired John Sculley from Pepsico to run the marketing of Apple's computers. Like the Sculley-Jobs situation, this person, whoever he might be, should have a contract structured so as to allow them a free hand in doing whatever needs o be done to turn this company around and reassert its technical prowess. No looking over the shoulder, no second guessing. The Tramiels should just fall on their swords, so to speak. Of course, given their game plan to date, I doubt Jack and company are looking to make a graceful, albeit necessary, exit. I fear the company will either be run into the ground or sold, broken and bleeding, before this alternative is enthusiastically embraced.

In the final analysis, the most important consideration for Atari is my opinion and that of others like me who are motivated to be purchasers of new equipment in the near future. This seems to be something which Atari has woefully forgotten. In this respect, the bottom line for me as a business user of Atari computers (since 1984) is that my work and the competition in the marketplace from other vendors, who provide services similar to mine, are forcing me to upgrade to a faster processing platform. My brand loyalty is not easily swayed. However, as a business investment, there is a bigger picture which I must consider, i.e. software availability as well as manufacturer stability. I honestly cannot say with confidence whether Atari will remain in business over the next year or two. Also, in some respects the company's emphasis on Europe and ostensible neglect of the U.S. market has already answered that question. If Atari has decided not to service the American market, why should I make my business life difficult and try to paddle upstream by purchasing their product (if you can even get it)?

I have thought long and hard about my next computer and have yet to make up my mind. But, I must tell you in all honesty that the underlying truth, as delineated in the Forbes article, does not enhance the probability that Atari will benefit from that ultimate decision.

Sincerely,
Peter von Nessi
President
The Normandy Group, Inc.

[See Sam Tramiel's GEnie Conference transcript elsewhere in this issue for Atari's response to the Forbes article. –JW]

Needed: B & W Cookbook

Dear CN,

I am looking for a good cookbook program for the ST or the Mac that does not require a color monitor.

Roger Smith
Wadesboro, NC

Help with DM & SB!

Dear Current Notes:

I've written to ST Informer, AIM, and other Atari computer magazines before about the trouble I've had with FTL's *Dungeon Master* and *Chaos Strikes Back*. I've yet to receive an adequate response if one at all. But I'll try one more time.

My system is a Mega ST with TOS 1.2 and four megabytes of RAM, 20 megabyte hard disk drive, SLM804 Laser Printer and monochrome and color monitors. I purchased a complete package in October 1988. Since then, I've purchased many software titles, many games, some utilities. Most programs I've experienced compatibility problems with involve the game software. None have irritated me so much as the FTL game software problems.

The *Dungeon Master* program runs flawlessly, except for the SAVE function. No matter what I do, when I try to load a saved game, the response is "data damaged on disk." The program is saving something to disk. I've seen the file that it has created. Do you know what could be causing this and its solution?

I've heard that some programs have trouble with systems that have four megabytes of RAM. Could this be what is happening? I know that there is a program called MAKEIMEG.TOS that seems to cure some programs. Do you think this program would solve my problem?

One individual from another Atari magazine suggested my disk drive might be misaligned. This doesn't make much sense because I have no problem saving data to the disk drive.

This problem has been one big headache for me. For years, I've tried to learn the secret to my woes. No one has helped me yet. I'd appreciate your suggestions or those of your readers. FTL has turned deaf ears. As you know, *Dungeon Master* can't be played without the SAVE feature. I can't even begin to play *Chaos Strikes Back*. Any help you could provide would be most appreciated.

Thank you,
Kevin Masterson

Down Side to Sparta Switch

Dear Joe Waters,

I did install the switches on the SPARTA DOS X cartridge as outlined in the article "Solving the Sparta DOS X Incompatibility Hassle," by Charles A. Cole from the June 1992 issue of *Current Notes*. The modification did, indeed, work as described in the article. There is, however, a down side to this project. When the Sparta DOS X cartridge is in the switched off position, you cannot do a cold start from DOS such as Option M – E477 because then the computer goes into its self test mode and you cannot get out of it unless you turn it off. When I ran a memory check with the cartridge installed in the off position, it showed several bad memory locations. When I removed the cartridge and repeated the test, the memory checked out O.K. I think you should be aware of these limitations to the project.

Ron Fetzer
Elmont, NY

On to Atarifest '92!

Okay folks, here we go again. The WAACE AtariFest '92 is just around the corner. Coming on October 10 and 11 to the Sheraton Reston Hotel in Reston, VA, a nearby suburb of Washington, DC, the show is ready to roll. Local as well as out-of-town user groups are banding together to produce the premier east coast Atari computer show. A truly great event is planned, and all that is now needed is an enthusiastic turnout of attendees. If past precedent holds, we'll see a lot of your faces there, with everyone having an exciting time.

New software and hardware always appear at AtariFest, and rumor has it that the Falcon will be here in the hands of a developer or two. MIDI is going to be a major event this year, illustrating a particularly strong suit of the ST, STe line. User groups will be on hand offering software and help to users, and The Swap Room should be at least as much of a hit as it was last year.

Productivity software is expected to be more prevalent than ever considering the terrific European imports that are rapidly becoming available, and plenty of demos are scheduled. If you enjoy games, your appetite should be satisfied in the Games Room which will offer the gamut of Atari's offerings over the years. Couple all this with a full slate of seminars, the banquet and lots of demonstrations, and you've got a veritable feast for the Atari advocate.

You really don't want to miss this event. Lots of folks come for both days, and a two day pass saves you money. It's quite difficult to take it all in in one day. Lots of door prizes are to be awarded to persons attending AtariFest with drawings being held nearly every hour. Bargains? You bet! Some like you've never seen, especially on Sunday; but you've got to come to play. AtariFest has a wonderful vendor exposition, with many retail dealers and lots of your favorite software and hardware developers.

For you out-of-towners, the Sheraton Reston is making special rates available from October 8 through 11. Call the hotel at 1-800-ROOM for reservations. It's quite a party we're going to have, and we enjoy meeting the great folks from beyond the Washington metro area. Hope to see you here!

Commit this to your memory banks: WAACE AtariFest '92, October 10 through 11 at the Sheraton Reston Hotel, 11810 Sunrise Valley Drive, Reston, VA 22091. Show hours are 10 a.m. until 5 p.m. both days, and admission is $5.00 for one day or $8.00 for both. Need more information? Call Ken Fassler or Betty Burchell at WAACE DTACK, 301-229-1886 in Bethesda, MD. You may also write to WAACE, P.O. Box 4079, Merrifield, VA, 22116.

Atari President Sam Tramiel Announces the New

Atari Falcon 030

at GEnie Atari ST Roundtable Conference

[On Wednesday, August 12th, Sam Tramiel, President of Atari, was the feature speaker at a GEnie RealTime Conference focused on the new Atari Falcon 030 computer. Reprinted below are the highlights of that conference. Note: names are represented by the GEnie user identification codes. -JW]

[Sysop] JEFF.W: On behalf of the Atari ST Roundtable, I welcome all of you to the Atari Corporation RealTime Conference featuring Sam Tramiel, president of Atari....

Later this month, Atari will be unveiling the Falcon 030 to the world at the Atari Messe in Duesseldorf Germany. The Falcon has generated a lot of speculation and rumors over its features and abilities, as well as hopes for the future of Atari in the computer industry.

Tonight we get a sneak preview of the Falcon. Before the crowds at Atari Messe get to ogle the Falcon, Sam Tramiel will give us a guided tour and answer our questions.

I know that many of you will have questions you'll wish to ask Sam, so I'll try to get to as many of you as I can. When it is your turn, you'll get to ask only one question during that turn. But you may have as many turns as time allows. After you ask your question, [use the] /RAI [command to raise] your hand again to be put back in line.

The purpose of this Realtime Conference is to get out factual information about the Falcon. Anything else that Sam is prepared to share with us will be icing on the cake. Please understand if Sam cannot answer specific questions about things like marketing, future products, and other non-Falcon related questions at this time.

Sam, thank you for being with us this evening. I understand you have some prepared text to upload to us about the Falcon. You may begin the upload at your convenience.

STRAMIEL: Good evening, all. I'm very pleased to be here on our official online service, GEnie once again. We're excited to be celebrating the 20th anniversary of Atari Corporation this year. We're especially excited because this is a time that we can introduce another milestone product to the world.

I'd like to take this opportunity to recognize some people who have been close allies of Atari Corporation. The entire staff of the Atari RTs on GEnie, under the leadership of Darlah Potechin have been providing stellar support to our customers for a number of years now. I'm grateful for the support of Darlah, Sandy Wilson, Jeff Williams and the rest of the GEnie RT staff in supporting our mutual customers. We've just signed a new agreement with GEnie, that will ensure the continuation of GEnie being our online home.

In addition, I'm pleased to welcome the new publishers of Atari Explorer Magazine, Mike Lindsay to Sunnyvale as well. As most of you know, we've brought Explorer in to our corporate headquarters. John Jainschigg has moved on to other challenges, and Mike Lindsay and Darren Meer are now at the helm of Atari Explorer. Our online magazine, Atari Explorer Online, is under the able leadership of Ron Kovacs. Ron is best known for his years of experience as the publisher of Z*Net Online Magazine.

Tonight, we're pleased to be able to finally announce the Atari Falcon 030 Computer. This computer will be unveiled to the buying public at the Duesseldorf Atari Messe in Germany next week. The Falcon is a machine that we're very excited about. We think that it places us back in the forefront of the "Power without the Price" place in the market.

Here's the specs on the Atari Falcon 030:

CPU:

- Motorola 68030 running at 16 Mhz
- 32-bit Bus
- Optional 68881 or 68882 FPU
- RAM: 1,4, or 14 megs
- Standard Atari Cartridge Port
- Motorola 56001 DSP chip

Expansion Bus:

- Internal direct processor slot for 386SX PC emulation, or other coprocessor

Graphics:

- Super VGA graphics: 640x480 with 256 colors
- True color 16 bit mode allowing a display of up to 65,536 colors
- Accepts external video sync signal to allow high quality genlocking
- Overlay mode for easy video titling and special effects
- Overscan on TV's and ST Color monitors
- 262,144 possible colors
- Hardware-assisted horizontal fine scrolling
- BLiTTER graphics co-processor

Sound Features:
- Eight 16 bit audio DMA record and playback channels
- Stereo 16 bit digital DMA input
- Stereo 16 bit DMA audio output
- SDMA sound/DMA Coprocessor

Standard Ports:
- SCSI II port with DMA
- High speed LocalTalk compatible LAN
- Connector for analog RGB color (ST or VGA) or composite video
- RS232C serial port
- Bidirectional parallel port
- MIDI IN/MIDI OUT
- Stereo microphone input, miniature stereo plug
- Stereo audio out, miniature stereo plug
- Two joystick connectors
- Two enhanced digital/analog controller/light pen connectors

Data Storage:
- 1.44 Mbyte floppy disk drive
- Optional internal IDE Hard Disk

System Software:
- Pre-emptive Multitasking with adaptive prioritzation (MultiTOS)
- Inter process communication
- NewDesk desktop and eXtensible control panel
- Multiple window user interface; number of windows limited only by memory or software in use.

We see this computer as exceeding all of the multimedia expectations of the computer buying public. As well as being an exceptional value as a home computer system.

Extensive testing with the Falcon has already been done on existing software. We are very pleased with the high degree of compatibility. For instance, *PowerNet*, a increasingly popular LocalTalk networking solution works fine with no modifications. *Calamus SL*, *PageStream*, *WordFlair II*, *Cubase 3.0*, *STalker 3.0*, *STeno*, *Arabesque*, and many other well-written applications will work perfectly.

That concludes our remarks, I hope you were all impressed with how fast I can type! I'll be happy to take questions Jeff!

JEFF.W Do you have a price ready to announce for the Falcon?
STRAMIEL No we will announce the price at the Duesseldorf Atari Messe, Jeff.

DRAGONWARE Sam, Thank you for the plug. What kind of numbers will be available in the U.S. and how soon?
STRAMIEL We are once again going to the FCC and I realistically expect shipments into the U.S. in mid October.

K.LONERGAN Are MIDI ports included?
STRAMIEL YES, MIDI ports are included with the Falcon. We fully support the MIDI standard.

J.ALLEN27 Hi, Sam, thanks for visiting GEnie again. Three questions: Is the Falcon going to stay black? How are you going to market it, what venues, etc? And is MultiTOS going to be 68040 compatible when released?
STRAMIEL Colors and marketing plans will be talked about at Duesseldorf and after that show, Jim. I have to save something for next week. And MultiTOS will be 68040 compatible! But sorry, we're not commenting about 68040 machines.

S.CORLEY1 Sam, about the graphics capacity of the Falcon. Why doesn't it have 800x600 or, better yet, 1024x768 graphics, as that is the VGA standard now. Also, has the BLiTTER chip been sped up to handle the extra graphics bandwidth.
STRAMIEL Hi Scott. The BLiTTER chip has been sped up to handle the extra bandwidth. The BLiTTER is now running at 16Mhz. VGA normally doesn't have TRUE COLOR, which the ATARI FALCON DOES, and this machine is aimed at having great color, great sound, and with the DSP chip, some wonderful new applications.

B.KING8 1) Are you going to advertise, and if so, how? 2) What is the deal with the GE Service contract? 3) Can we expect Desktop (ie. Detachable keyboards) models and Tower versions?
STRAMIEL As I said before, all marketing announcements will be made at Duesseldorf. I will not comment on future models of the Falcon. We are talking today about a machine that will be shipping next week. We don't want to make future announcements and get into trouble with Vaporware. And by the way, for higher rez requirements, buy TTs! :)

R.PECORA Has the recent Forbes article influenced Atari's future marketing plans?
STRAMIEL My new office, which has a better view than my old one, is so far quite satisfactory. And Richard Miller is in my old office. The Forbes article was a mish-mash and misconstrued article full of half truths. We are anxiously awaiting the release of the Atari Falcon to bring us back to the forefront. The article has given us some laughs, but otherwise has not affected us.

OAWALKER Evening Sam. PLEASE SHOW falcon at Glendale for all the So Cal Boys.
STRAMIEL We will try our best to show it. There will be a number of fine developers there, like Lexicor Software showing Atari Falcon applications.

S.JACOBS6 Would you please name some of Falcon's designers?
STRAMIEL The Atari Falcon was totally designed in house at Atari, and it is not our practice to give out individuals names. So many people are, and were, involved in the project. They all worked very hard to bring this to a reality!

JM.HAWTHORNE Is the expansion bus VME?
STRAMIEL No, it is not a VME bus. It is a direct processor slot that gives developers more flexibility.

M.RHODES8 How do you think the Falcon will compare with the industry dominating IBM platform?
STRAMIEL There is no comparison! The Atari Falcon is far superior to the PC platform. Our challenge is to get a lot of software for the platform, and a lot of people to buy it.

G.STOLLMAN Sam, you mentioned IBM emulation. How close to true IBM 386 speed and power will this actually be? By this I mean, like a 386 33 SX? Will this require an add-on unit for more speed??
STRAMIEL Hi Gary. Bill Rehbock assures me that a PC Board will be shown at Duesseldorf. We will give you specs after the show.

JEFF.W Any comments about performance?
STRAMIEL Not until after the show, Jeff. Sorry. It's not our product.

P.LORIMER Will the Falcon be sold will MultiTOS, and will multiTOS be in the ROM's? From what I've heard it takes up close to a MEG if in RAM.
STRAMIEL Yes, the Atari Falcon will be sold with MultiTOS. It will be a combination of ROM and disk based.

S.AGARWAL Sam, Why no DMA (ACSI) port? How shall I connect my SLM 804 to the falcon?
STRAMIEL We felt that the DMA port was not enough of a standard port. That's why we went to SCSI II. There are several third party companies that are working on a converter box to allow you to connect up your SLM to the Atari Falcon 030. The SCSI is much faster than DMA, too.

NEVIN-S Thanks for coming tonight, Sam. As a developer who depends on sales of Atari software for a good portion of my living, I am excited about the new Falcon. On the other hand, I see more and more people being fired from Atari, entire divisions being closed down, etc. Atari seems to be very good at cutting costs, but is this really the time to cut costs? I am concerned that once again Atari will have a great machine technically, but that the corporation behind it won't be strong enough to make the Falcon fly.
STRAMIEL We are "right sizing" our company to reflect our current rate of sales. We must conserve assets for future growth with products like Atari Falcon. Example, with the new North America free trade agreement, we felt that we could handle Canadian sales logistically from Sunnyvale and have sales people in Canada and the US handling both countries in a north/south direction. We will support the Atari Falcon throughout the world. And need developers like you to support it as well.

C.ROSE4 I've been using 1040 ST because of it's MIDI capabilities. I also use C-lab's Notator. I wanted to buy a TT, but Notator won't run on it. Will the Falcon support this product?
STRAMIEL The new version of Notator will run fine on a Falcon, just as the new version will run on the TT030.

E.MONACO Is 16Mhz viable running multiple applications? What can we expect?
STRAMIEL We've found it to work just fine. The 68030 is well suited for multi-tasking.

B.SALDANA1 The Falcon inspired me to design an attractive monitor stand for it called the STATION. Has it been inspiring new or old software developers? (I'll send you one Sam.
STRAMIEL At a recent Atari Falcon developer conference, (organized by the capable Bill Rehbock) in the UK, I was very happy to learn about new developers and some exciting software that is already being developed. The machines spec are so novel, that developers really have to figure out all the new, wonderful things that they can do with it. I'm sure that we'll see great software within the next 6 months. Thanks for the offer of the monitor stand, I'll look forward to it!!!

J.TORRES17 Sir, is the Falcon fully 1040STe compatible (graphics, 8Mhz, TOS, etc) or more like the TT?
STRAMIEL The Atari Falcon is VERY STE compatible. Much more so that the TT030 is. We really try to make our products as compatible as possible.

SAM-RAPP Does this "Official Announcement" mean that all these "Gagged" developers can start talking nitty gritty with us info-starved masses? At least some info?
STRAMIEL No more on our product, but they will be welcome to discuss the applications that they are developing that will be Falcon specific.

WORDFLAIR Sam, we are excited about the Falcon. We will be launching several new products that take full advantage of its power later this fall. The products are being developed by us and by Digital Arts, GmbH, the former development team for 3K Computerbild.

STRAMIEL Lauren, it's always a pleasure to have you as part of the Atari team. Thank you for your support!!

AD-VANTAGE The Falcon sounds wonderful Sam! Could you discuss in general terms some of the new software in development for the Falcon and what do you think the most significant impact of the DSP hardware will be on such new applications?
STRAMIEL I cannot give exact details tonight, but I think that the DSP hardware will open up a whole new realm of communications type software. I'm pushing very hard for voice mail type applications for the home.

M.HILL13 You mentioned the SCSI 2 port is DMA driven and the DSP, too, I believe, but is the Localtalk port DMA driven like on the TT or is it like the Mega STe Localtalk port? I hope it is DMA driven.
STRAMIEL It is not DMA driven, sorry Mike. We think that it is satisfactory at this level.

ABC.SOLN Can you comment on the future of existing machines, especially the TT030. (There have been reports that it is out of production.) For instance, will upgrades to multiTOS be available? Will trade-up deals be offered?
STRAMIEL The TT030 is still in production, and we do have plans to release Atari MultiTOS for the TT030. It is not a practice for us to offer trade-up deals. That is something that is for the discretion of the dealers.

M.RIVMAN1 MR.T. (Sam), welcome! As good as the new machine looks on paper, we have all been hard hit by lack of support by dealers/developers. PLEASE, sell me on staying with the ATARI platform when all my friends scream MAC for MIDI DTP, graphics!!!
STRAMIEL We have been reluctant to attack the US market with the old machines. We feel that the Atari Falcon is truly a giant step forward and we hope that this will turn on users in the US. This will help get our marketplace going. We are signing up new dealers, and as more software becomes available, you will be seeing us advertise in the US. But as I said earlier, I will not go into details at present.

W.RENKEL When will they arrive in the US, and where do they fit into the current product line??
STRAMIEL They will be available in mid-October, and they fit very well into our product line!

CONNOR Good evening Sam. I assume that the release date for the Falcon will be the same in Canada as in the United States, is this correct?
STRAMIEL If anything, it might be earlier in Canada. That's because I'm a Canadian, eh.

C.FLUEGEL Will it be possible to record/playback on just a single of the sound channels, or will they only work in pairs??
STRAMIEL According to Bill Rehbock my trusty technical assistant, yes, you can record on a single channel.

T.MCCOMB Will MultiTOS be available for the rest of the ST line? If so, what kind of time frame for availability? -Tom. Please tell me there will be a MAJOR marketing effort in the USA otherwise only us Chickens will know about the Falcon.
STRAMIEL MultiTOS will be available for TT030 and for future 68030 and above machines. We already answered the other marketing questions.

S.JOHNSON10 You said the Falcon 030 (is it actually going to be called that, by the way?) has a 16-bit 65,536 color mode. Will that work at 640x480 or is that mode limited to lower resolutions and, if so, which one(s)?
STRAMIEL Steve, the machine is called the Atari Falcon 030. The 16-bit true color mode will work in 640x480 interlaced on a TV or ST-style monitor. True Color will also work in 320x480 on VGA monitors.

HAINES For ram expansion up to the max of 14 meg, is the ram standard simms or proprietary type packages? If not, is this the type of thing good chip merchants will have readily in stock.
STRAMIEL It is a custom board, but not proprietary. We will have it readily in stock, and we are a great chip merchant!

R.MARTIN22 Thanks for being here tonight. I'm thinking of becoming an Atari dealer. What support can I expect from Sunnyvale? Are the analog ports you mentioned the same as those on the STe?
STRAMIEL Please contact new US sales director Art Pruzynski regarding your dealer interest. We will support you fully. Yes, the analog ports are the same as on the Atari 1040 STe.

C.CASSADAY From your answer about MultiTOS and the ST, it seems as if 68000-based machines may not be in Atari's production future. Also, when, and in what form can we expect MultiTOS for the TT030.
STRAMIEL Hi Chris, the future of the 68000 machines all depends on [what] the market wants, ie, what sells. MultiTOS will be available from Atari for the Atari TT030 as an upgrade. We'll supply details on when later on, after Duesseldorf. From what I have seen, MultiTOS is fantastic, and is just as much a major advance as the hardware for the Atari Falcon. No Guru meditation errors, and some really great graphic features, and wonderful technical features.

(Continued on page 14.)

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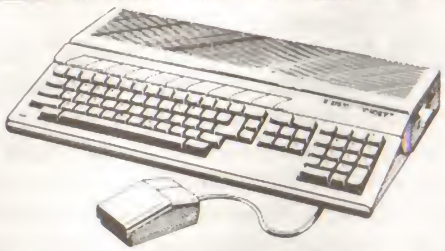

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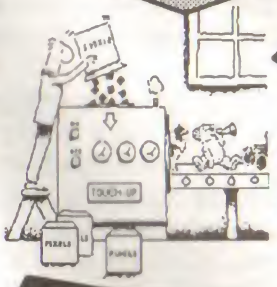

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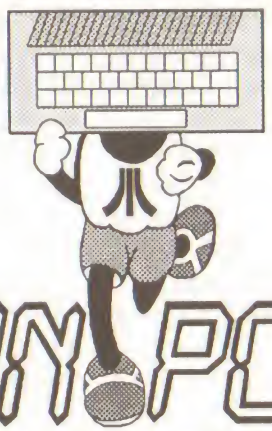

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S.CORLEY1 Sam, why did Atari choose to use the fixed point 56001 DSP instead of the newer, more powerful 96002 DSP which has floating point? Also. could you give more detail about Falcon graphics capacities, i.e resolutions, # of colors, scan rates, interlacing , etc.
STRAMIEL Scott, the primary reasons were price ... the 96002 is much more expensive. The newer chip doesn't have the software tools available to take advantage of it yet. We'll post more graphic details grin in the bulletin board after Duessledorf.

C.OATES2 The Advantage article mentioned 16 bit in only 320x200. Any other inaccuracies we should know of in their specs?
STRAMIEL We have released the specifications of the Atari Falcon tonight. You are getting all of the information straight from the horse's mouth. We'd rather not comment about the Advantage article.

M.ALLEN14 Does your comment about the FCC indicate that the Falcon is NOT Class B yet? If this is so, how can you have significant quantities in the US by Mid-October?
STRAMIEL We have not yet even given the machine to the FCC. And we are only applying for Class B approval. According to our "experts," it should pass Class B. We will not have significant quantities of Atari Falcon until later in the year. October will be just the beginning.

R.ALBRIGHT7 Have any As-of-Yet Non-Atari Vendors expressed intentions to produce applications taking advantage of the tremendous new capabilities of the Falcon? Software from a well known vendor could do wonders for enticing users of other platforms.
STRAMIEL Yes, there are some 30 new developers that are producing software for the Atari Falcon. Several of the developers are also NeXT developers, for example.

R.PAINTER3 Will it be possible to upgrade to a 040, or should I hold out for the better machine? (I can't afford both).
STRAMIEL The Atari Falcon 030 cannot be upgraded to an 68040, as far as the design goes. I'm sure that you'll find the Atari Falcon 030 very cost effective. Buy one!

JM.HAWTHORNE How fast will the serial ports be, and how many?
STRAMIEL The serial port (there is one) is driven by the SCC chip. It is capable of full local talk speed, 250K baud. Also, we feel that the DSP port will have great telecommunications applications with very high speed things, like ISDN.

R.PECORA Is a Mega-type version Falcon a possibility in the near future? Many of us prefer the external keyboard arrangement.
STRAMIEL Sorry, as I indicated before, no comment about future machines. Thanks for your input on the external keyboard.

M.RHODES8 Do you think the "major" retailers (ala CompUSA, Computerland) will carry the Falcon? Being here in San Francisco, I only have 2 or 3 places I can go for Atari equipment and I would love to see the Falcon supported in these outlets.
STRAMIEL We sure hope that some "major retailers" will pick up the Atari line. A good friend, that you all know, named Greg Pratt, now runs Intelligent Electronics. Why don't you write him, and push him to sell Atari products?

JEFF.W To everyone who we didn't get to, my apologies. But we —have— run through an incredible number of questions and answers during this time. Thank you all for attending and participating.

Sam, many thanks to you and the Atari crew for being here and filling us all in about the Falcon. Many best wishes for its success. Do you have any closing statements you'd like to make before we adjourn?

STRAMIEL Yes, Jeff. Thanks for joining us here tonight. And we appreciate your support of Atari. I've just returned from Asia, where I saw the first Atari Falcon production coming off the lines. Let's hope this new offering will make it in North America. I know that the specs are great. We should have a good chance, with all of your support. Good night, thank you again for attending tonight!

JEFF.W Thanks again to Sam and all who turned out here.

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To sign up for GEnie service, call (with modem) 800-638-8369. Upon connection type HHH (RETURN after that). Wait for the U#= prompt. Type XJM11877,GEnie and hit RETURN. The system will prompt you for your information.

==========

[By the time you read this, Atari will have shown the Falcon in Germany. But that event, unfortunately, will have occurred after our publication deadline. However, CN does have a correspondent in Europe and we will bring you complete coverage of the Falcon rollout next month. -JW]

GEMULATOR

The Atari ST Emulator for MS–DOS and Windows

A Preview by Milt Creighton

A Beta Test Preview

Several months ago, when I first saw the advertisement for *Gemulator* that Darek Mihocka's Branch Always Software placed in an Atari magazine, I was intrigued. The prospect of running Atari software on my PC interested me because it suggested an economical way to keep a foot in two worlds. At one time I owned five Atari ST computers ranging from a 520ST to a Mega ST4. Now, I am down to two and the temptation to reclaim some of the desk space the remaining STs occupy occasionally surfaces.

For review purposes, Darek shipped a pre-release version of the board and the third beta test version of the software. Normally *Current Notes* only reviews release versions of hardware and software products. The reasons for this policy are obvious. It is not the reviewer's role to become a beta tester for a developer, however important the product. In this case, the ST editor of *Current Notes* decided to make an exception because there has been a dearth of new products for the ST and *Gemulator* is one of the more interesting products under development.

One reason *Gemulator* is important is because it is bound to be viewed by some as an ST-killer. Atari ST hardware sales are marginal and declining at best. The introduction of *Gemulator* won't, in my opinion, encourage any reversal of that trend. On the other hand, some will argue that *Gemulator* could serve to broaden the ST user base or at least slow its steady erosion so that software developers continue to produce new and/or converted products for the ST. Conceivably, superior ST products like *Calamus* and *PageStream* could even draw new users to ST software. But these possibilities exist only if *Gemulator* successfully emulates the ST in speed, power, and compatibility.

Defining the Gemulator

For purposes of this preview, I will reiterate the claims that Branch Always Software advertisements make about *Gemulator* and then relate my own experiences while investigating those claims. My advice is to pay close attention to the qualifying statements in the ensuing discussion if you are interested in buying this product.

Let's begin by defining what *Gemulator* is and describing the type of platform you should own if you plan to install and run this ST emulator. First, *Gemulator* emulates a 2MB Atari ST. *Gemulator* consists of three items: a small, 8-bit PC board that fits in an expansion slot in your PC-compatible computer, one or more sets of original TOS ROMs, and the activating *Gemulator* software. If your MS-DOS computer doesn't have expansion slots (such as is the case in most MS-DOS laptops and notebooks computers), you can't use *Gemulator.* Darek also states that you must have at least a 386-based PC for *Gemulator.* 80286-based machines and below do not have the power, or the extended memory, to run the emulator. To his minimum requirements, I would recommend using at least a 80386DX-based machine with cache memory.

Gemulator runs under both MS-DOS and Windows environments and features mouse and both floppy and hard disk support. The release version will allegedly also include modem support. *Gemulator* supports all versions of TOS and emulates all three ST screen resolutions (including the STe's 4,096 color palette). *Gemulator* does not support Atari sound (including MIDI) or joysticks.

Installation Is Simple

Gemulator is very easy to install. Simply plug your TOS ROMs into the sockets provided on the card, plug the card into an empty expansion slot and install the software. That's it. I installed *Gemulator* in about 10 minutes and the most difficult part was getting the cover back on my tower-style case.

My test system was a 486DX50 with a 265K SRAM cache, 16MB of system RAM, a 17" SVGA monitor driven by a Diamond Stealth VRAM card with 1MB onboard, high density floppies of both types, a 330MB Maxtor hard drive, and a 88MB SyDOS removable hard disk.

As previously stated, the version of Gemulator I received was a pre-release version. While it would read files from my hard and floppy disk drives, the write capability was disabled--ostensibly to prevent problems during the development process. This "feature" made review difficult and, consequently, I cannot categorically state that *Gemulator* is capable of writing to floppy or hard disk drives at all (not that I doubt it will).

So, Does It Work?

Otherwise, *Gemulator* works pretty much as advertised. I was able to run it under both DOS and Windows 3.1 environments (more about that later) and I successfully tried all Atari ST screen resolutions. I

ran *WordPerfect* 4.1 for the Atari, *PageStream*, and *Calamus*, in addition to a number of utility programs such as *TurboST*. *Gemulator* choked on the mouse accelerator from Atari, *Superboot* (since writing to the disk was disabled), a number of shareware programs and all of the games I tried. Also, I was never able to print from *PageStream* or *Calamus*. The problem was probably not due to *Gemulator*, however, since I was able to print successfully from the desktop. My PC is connected to a Canon LPB4 laser printer and I suspect the application printer drivers, and not *Gemulator*, were at fault.

How Fast Is It?

I ran *Quick Index* version 1.8 in the MS-DOS environment to provide benchmarks for performance comparison. I was unable to run *Quick Index* under Windows for reasons I will describe later, but results would not have been as good. All runs were made with *TurboST* installed in order to achieve faster scores. Here are the results:

	Gemulator (TOS 2.06) Intel 486 @		Mega ST4 TOS 1.4	1040 ST TOS 1.4
	25 MHz	50 MHz	16 MHz	8 MHz
CPU Memory:	79%	228%	135%	100%
CPU Register:	29%	86%	202%	100%
CPU Divide:	296%	576%	202%	100%
CPU Shifts:	318%	986%	206%	100%
DMA 64K Read:	67%	92%	2178%	100%
GEMDOS Files:	193%	160%	1801%	100%
TOS Text:	174%	520%	481%	453%
TOS String:	694%	2161%	1962%	1969%
TOS Scroll:	58%	161%	144%	132%
GEM Dialog:	110%	235%	430%	218%

From averaging the above figures you can see that *Gemulator* on a 486 running at 50MHz runs about one and a half times faster than a stock 1040ST (with *TurboST* installed) and at about 2/3 the speed of an ST equipped with a 16MHz accelerator board. Purists will claim that some of the above measurements are more important than others and they would be right for specific applications, but for many uses simple averaging should yield ballpark results.

Other Considerations

OK, I have stated that *Gemulator* works, quoted speed benchmarks, and listed some specific applications that perform properly, but that still dodges the question of how well *Gemulator* works and ignores some of the hidden costs.

To begin with, *Gemulator* is a memory hog. Under DOS it currently requires 7 MB of system RAM! The emulator itself occupies 3 MB of RAM (although that will probably shrink as the code is optimized). Another 2 MB of RAM is consumed by the DOS extender and the final 2 MB is required for the 2 MB ST being emulated. Add that up and the total is 7 MB for the latest beta version. I doubt the total RAM requirement will shrink significantly since new features continue to be added. The implications are that *Gemulator* will run in DOS only if you have 8MB or more of system RAM since most PC architectures don't normally add up to 7MB.

Under Windows, *Gemulator* requires 9 MB of RAM, but much of that can be virtual memory rather than system RAM. Windows uses a swapfile to increase available RAM for Windows applications by reading and writing blocks of memory from and to the hard disk. A 4 MB system with a 6-10 MB permanent swap file on your hard disk should be able to run *Gemulator*. There are costs, however; swapfiles are nowhere near as fast as system RAM and Windows itself is pretty heavy overhead for an emulator to have to drag around. The combination will slow *Gemulator* significantly.

The software that comes with the package is really the heart and soul of *Gemulator*. The small plug-in board is only there to hold the TOS ROMs and provide the necessary hardware for communication with the PC. The software takes up about 4.35 MB of disk space on your hard disk and loading and running a program that big takes a substantial amount of time, even on a fast PC.

Once you are into the program, *Gemulator* reports the number of floppy drives detected, states whether the parallel printer is on-line, and then describes the size of the hard disk. Hard disk support is included in the third beta test version of the software, but this is one area where the buyer had better beware. More about that later.

Gemulator displays a "?" prompt on the welcome screen. This is an indication for the user to select the options *Gemulator* provides. These options include selection of the number of floppy disk drives (up to two) and whether to boot up in monochrome or color. *Gemulator* supports both 5.25" and 3.5" high density floppy disk drives, and defaults to a one-drive system. Another selection allows the user to switch the order of the floppy drive, i.e., the "A" and "B" drive designators may be switched if desired.

Since it is possible to install multiple TOS ROM chips on the board, Gemulator also lists the TOS ROM sets available and requests the user to select one (if you have more than one). The review item I used occasionally identified an additional TOS ROM set not installed on the board. The program, of course, crashed when this "phantom" TOS ROM set was selected.

Entering an "I" causes the TOS ROMs to be installed and you will soon find yourself in the ST GEM environment. If you are using TOS 2.06, do not be dismayed by the error report on the opening screen; ignore it and proceed.

Hard Disk Support

One of the two biggest problems I had with *Gemulator* was in the area of hard disk support. To begin with, you will need to run an Atari hard disk device driver (not provided) in order to have GEM recognize your hard disk. Other than ICD, which has built-in copy protection, there are no Atari device drivers of which I am aware that will drive hard disk partitions larger than 32 MB. In the MS-DOS world, 32 MB can be a rather small partition. I have several partitions larger then 100 MB, for example, and one of them is doubled through a disk compression program to more than 200 MB. My smallest partition is 43 MB in size.

The implication of this limitation is that you may have to repartition your hard disk if you want to use *Gemulator.* In case you are wondering, that also means that everything you have on your hard disk will be erased. Since I wasn't about to reformat my hard disk for purposes of this review, I had to resort to trickery.

I reformatted my SyDOS drive with the first partition set at 30 MB and (after copying the requisite files to that partition) went into my bios setup and uninstalled my hard disk. Rebooting the PC made the first SyDOS partition my C drive. At present, *Gemulator* only supports one hard disk (or one partition), but Darek promises that while the release version will support only a single drive C (or partition), future releases will support up to 4 partitions or additional drives.

After running the *Gemulator* software and activating the GEM desktop, I ran my Supra hard disk driver from a floppy and installed the hard disk icon. Everything worked pretty much as advertised until I tried to run a program from the installed hard disk. *Gemulator* apparently failed to respect the partition I had installed and responded with an error code when I tried to access the disk beyond obtaining a directory listing. Any attempt to access software (including getting a directory listing inside a folder) crashed the system. I have made repeated attempts to get *Gemulator* to respect the partition size and have yet to meet with any success. The problem is probably with the SyDOS device driver and *Gemulator* may have no problem with your fixed hard disk drive, but check out hard disk support within the warranty period. The problem here is the PC world is so vast that it contains all sorts of incompatibilities. To expect an emulator that patches into a totally alien environment to be compatible with every item in the PC world just isn't realistic.

In the Windows environment there are also big problems. I was able to successfully run a previous version of the *Gemulator* software from within Windows, but the third beta version repeatedly hung up while running the DOS extender. I tried at least a dozen different versions of configuration (.PIF) files to see if the problem was with Windows, but every attempt hung up at the same point. Where the problem lies is beyond me, although I still suspect Windows or the DOS extender to be the culprit. I tried using only HIMEM.SYS and EMM386.EXE and still had no luck. Since *Gemulator* loads and runs under DOS on my machine, I suspect the problem is not in *Gemulator,* but that still doesn't help matters. The current *Gemulator* software just flat would not run on my machine under Windows 3.1. Darek has been made aware of the problem and he is working on it.

Branch Always Software will not market *Gemulator* themselves; that will be done through PMC, a division of Public Domain Corporation. Look for their advertisements in this and other Atari magazines. Original TOS ROMS of various revisions will be available through PMC as well.

The Bottom Line

Should you buy *Gemulator*? In its present crippled beta test form, the obvious and immediate answer is no. But Darek promises the release version will be fully functional and he was offering a 33% discount for those who ordered through the end of August. I have bought plenty of emulators for the ST including *PC Ditto I* and *II, SuperCharger,* and *PC-Speed.* With the possible exception of *PC-Speed,* which worked as advertised, I was disappointed with every one of them. *Gemulator* offers more promise and, with the proper platform, more capability than any of them.

But even a promising design still begs the question. After all, I have a better ST emulator sitting right behind me in the form of my Mega ST4. For those applications that require GEM DOS I can use that machine and suffer none of the compatibility problems inherent in any emulator. Also, the moribund Atari software market is unlikely, in my opinion, to entice dedicated PC owners to buy and use *Gemulator,* even given the sophistication and power of programs like *Calamus* and *PageStream.* Finally, the beta test version I previewed has some major problems that will need to be fixed before release. While I probably would not buy *Gemulator* if I had to pay $250 to $350 for it, I will keep (and use) the preview copy Darek sent me (with his permission, of course). I do not say this because I feel the release version of *Gemulator* will be inferior in any way, but rather because it does not suit my needs any better than the solution I already own.

Those of you who read this may have different needs and, perhaps, *Gemulator* will present a handy solution for some of you. If you need an ST emulator for your PC, then *Gemulator* is in a unique position to satisfy that need and if the introductory price of $199 ($299 after August) seems inexpensive, just remember that you will have to come up with original TOS ROMs for the *Gemulator* board as well. That same amount of money could buy you a new (or used) ST system with fewer compatibility problems even if it does clutter your desk.

ST TOOLBOX

by J. Andrzej Wrotniak

Why We Need Europe

Otto's RCS, HighSpeed Pascal, and April in Paris

ORCS—Again, the Best Things Come Free

For a long time I kept complaining about a missing development tool on the Atari ST market—a resource construction program (RCS) for GEM. For those who may not be familiar with the name, a reminder. A resource (.RSC) file contains a description of all screen objects a program uses for user interaction: menus, dialog boxes and such. All this can be hard-coded into the program, but it is *much* easier to use an RCS to design all those widgets interactively on screen (and, besides, a resource file can be mechanically translated into a corresponding program code).

The original RCS from Digital Research, the authors of GEM, has been initially distributed only with the Atari Developer's Kit—for a rather steep price—if you did not want all the other stuff. It wasn't so bad, especially in Version 2, *RCS2*, which has been around for five years or so. It has some bugs, sloooow saving process and some painful limitations. On the other hand, its user interface is simple and intuitive, and, after all, it is doing its job (almost) all right.

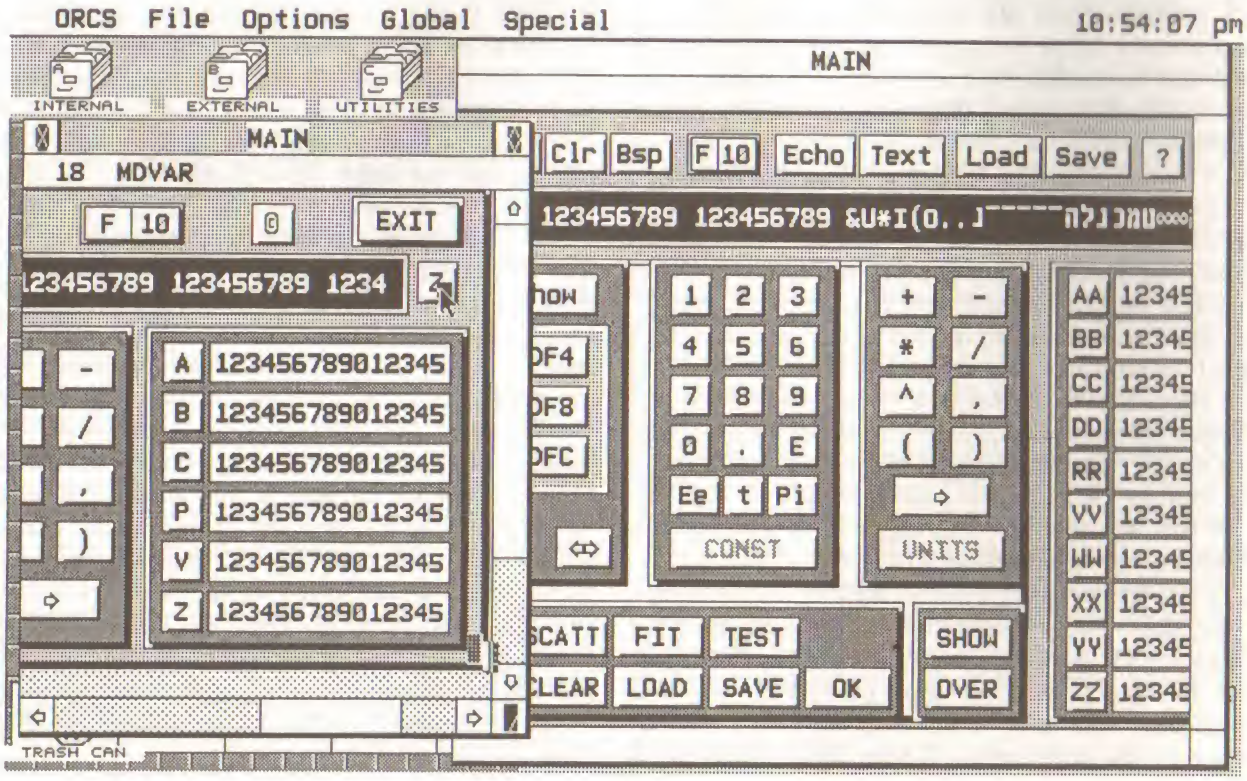
Those who wouldn't buy the Developer's Kit had a choice between pirating a copy (now you can buy the *RCS2* alone directly from Atari) and buying a third-party product. *WERCS* and *Kuma Resource* were the best known of these, distributed as stand-alone products or packaged with some compilers.

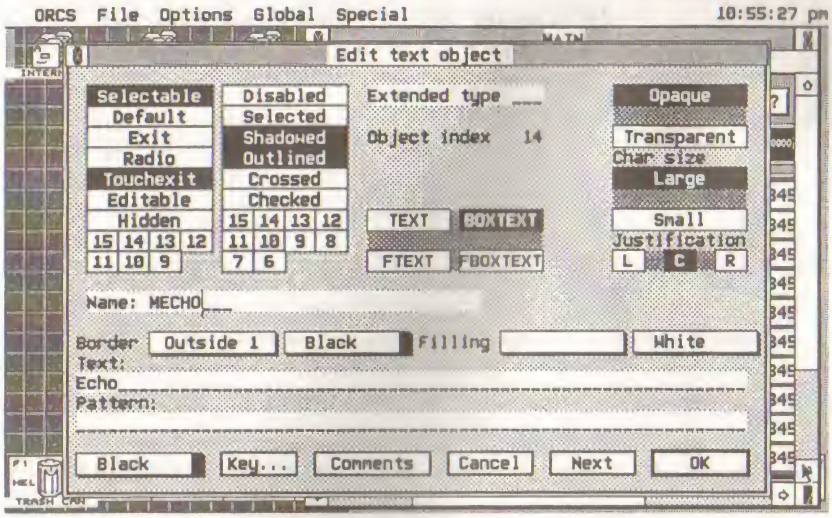
Having some complaints about *RCS2*, I have tried both *Kuma Resource* and *WERCS*. Both programs had some features absent in *RCS2*, but, alas, both were far from what I was hoping for: quite unreliable (read: crashing), sometimes inconvenient to use, with some irritating limitations and quirks. Not a polished, professional work I would expect from a development tool.

So each time it was back to the old, cursed *RCS2*, and it carried me through all these years.

Until recently. Last May, I found a shareware program from Germany. Called *ORCS*, or *Otto's Resource Construction Set*, it was written by Mr. Thornsten Otto from Essen (formerly behind the Iron Curtain). After trying it out, I am not using anything else.

The program comes with two very short text files in German, but the user interface is in English (with a mild peculiarity here and there, but better than some US programs I have seen). Even without any documen-





tation, if you know what an RCS does, you will have no problems using *ORCS*, at least for the jobs of which the Atari's *RCS2* was capable.

This last clause is quite important, because feature-wise this program beats all others combined.

One group of improvements relates to the output, i.e. the resource file produced by the program. First of all, you have full control over the usually null parts of some data items (describing buttons, editable fields etc.). These parts are ignored by GEM, but your program may use them, creating lots of possibilities. Also, the choice of files produced by *ORCS* in addition to the normal .RSC file is wider: not just *include* files (for C, Pascal, Modula-2, assembler, FORTRAN and BASIC), but also complete source files in C and assembler. And yes, *ORCS* output is compatible—in both directions—with the other RCS programs(which, by the way, are not always compatible between themselves).

The second group makes the process of using *ORCS* much easier, faster and more convenient. Objects can be moved and resized either with mouse or by typing in the co-ordinates; they can also be easily moved or copied between windows containing different object trees (not necessarily from the same resource file).

There is even a "find by name" option, taking you directly to the desired object, and a plethora of small but useful touches, making the process of building a resource much less of a pain. Mr. Otto has included virtually everything I could think of, and a kitchen sink.

Last but not least, the program seems to work flawlessly. I have experienced no problems with serious modifications to my *huge* resource files for the newest *El_Cal* and *Star Base*, and this was a good workout!

The only problem I found in *ORCS* is the maximum string length of 64 characters in objects. *RCS2* allows for more than 70, and one of the objects in *El_Cal* is 72 characters long. Well, at least *ORCS* does not trash the excess characters (one of the other programs does), and 64 is enough for practically all applications.

My second complaint is even more insignificant: the *Tempus*-like desktop with drive icons isn't very useful, usually obscured by program windows; just a gimmick. Luckily, you can perform all file operations from the regular *File* menu, leaving the desktop alone.

If you were looking for a resource construction program, look no further. *Otto's RCS* is a clear winner in terms of both *what* it does and *how*. More, trying it out costs you nothing; the thing is shareware (I found it on GEnie and Joe is adding it to the CN library this month as disk #730). But if you use it in your programming (and I know you will), get an international money order for 50 Deutsche Mark in your local bank or post office and send it to the program author (his address is in the German text file). Please do it: Mr. Otto did an excellent job and his work should save lots of your time (and irritation). My check is going out with a copy of this review.

HighSpeed Pascal, Orphaned But Improved

Last May I reviewed the *HighSpeed Pascal* here; a quite good implementation of this popular language, with powerful Turbo-like extensions, but also with a few drawbacks limiting its usefulness in writing large applications.

Some things have changed since then. The bad news is that *HSP* is no longer distributed in the States by GoldLeaf. Well, it looks like the programmer's market on the ST is quite small and a "regular" software distribution company cannot afford catering to it.

The good news is that the compiler has been upgraded to Version 1.5, addressing most of my complaints. I have had an interesting e-mail exchange on this subject with one of our Readers, Mr. Mark O'Bryan from Paradigm Software Products. Mr. O'Bryan has ordered the upgrade directly from HiSoft in England (10 British pounds) and is quite happy with the improvements. Most importantly, the 32k limit for array size has been lifted, and the Turbo compatibility has been improved by adding typed and structured constants, and by allowing the assignment of a data object to a given absolute address. The integrated programming environment has been cleaned up and a multitude of small bugs were fixed. For those who are interested, lots of information on *HSP* can be found on GEnie (Topic 3 of Category 3, Page 475).

My own Version 1.5 from England is due shortly, so an update of the review can be expected in these pages within the next few months.

Prospero, Abandoning the US?

Another British firm, Prospero Software, the makers of C, Pascal and FORTRAN compilers, can no longer be reached in the States. A pity, because all three compilers, albeit quite slow, produce a fast-running code, are well documented and clean (and I've used them all quite a lot!).

I've heard that Pacific Software from California is still distributing Prospero products here. I wish I could verify this information. In the meantime, some dealers still have Prospero software in stock (L&Y, Toad and Joppa in this number).

What, No Phone Support?

Let us admit it: we are a bunch of spoiled brats here. A few years ago Word Perfect Corporation had a staff of more than 200 user-support representatives, sitting at their phones and answering moronic questions from people who did not know how to use their program. Well, the most popular word processor in the world is not an achievement of user-friendliness (or even of a logical and consistent design), but most of the questions could have been answered by looking into the program manual.

We have grown to expect this effort from anyone selling us a piece of software. Certainly, it is nice to have it, but guess who is paying all those salaries? Santa Claus?

All this depends, of course, on the size of the market. *Word Perfect* sold, I presume, at least a million or two copies up to date, not counting constant upgrades. Maybe more. Most, if not all, of the questions concerning it are pretty standard and can be answered by a person after a short training. When we move into a less popular computer platform (as the ST versus PC) and into a more narrowly specialized application (as a compiler versus word processor), the market shrinks dramatically. On the other hand, the skills required of the person answering users' questions will now be higher: the support representative has to be a smart programmer with a good knowledge of the *inner* workings of the particular product.

Try to hire a person like that for less than $40,000 a year. If you are very lucky, you may find someone for $35,000 (perhaps an immigrant). Divide this figure into the number of copies you will sell in the same time. A thousand copies? Fat luck! Nobody really knows how many STs we have in the US, but various estimates I've seen ranged from 50,000 to 250,000. Only a small fraction of the owners do any programming, and there are ten or so competing compilers (counting all languages) on the market. OK, you've spent a lot on advertising, a thousand. This means that $35 from each copy price goes towards the phone support! (You may argue with my figures, but add job benefits, overhead, office expenses etc., and this usually doubles the estimate.)

Well, some may say, on a small market there will not be many calls for support! So what, I will argue, the support guy (or gal) will just sit idle, but he has to be there whether you need him or not. Well, give him something else to do in the meantime. Again, this may work fine if he is a programmer working on the product: Charlie Johnson from the CodeHeads will take an occasional phone call, and he knows well how his code works. But if the program comes from abroad, and the company is just distributing it here? The truth is, we are as good as dead.

A new emerging pattern is that of small programming houses taking over the distribution of products from overseas. Gribnif and Codehead, again, come to mind, with some very nice software they distribute. They have some people doing actual development and taking an occasional phone call.

By the way, Gribnif sells the *Pure C*, an excellent (supposedly, I haven't seen it yet) compiler from Germany. The program must be good, as a couple of years ago Gribnif's Dan Wilga, the author of *NeoDesk*, rewrote his program under this system; only a year or so later they secured the distribution rights. The bad news is, the market is so small that they yet have to translate the manual into English! Just the cold numbers.

Brits to the Rescue

In view of all this, more and more people are resorting to an obvious solution: buying the software directly from Great Britain. Their market is much bigger than ours, and their manuals are written in a language resembling English: it does not take a rocket scientist to figure out what *programme* means.

In the era of plastic money and functioning mail, this makes sense. A knowledgeable review (I hope to see more write-ups of programs from overseas, in *Current Notes* or elsewhere) may tell us more about the program than handling the box in a store, and a good demo version may be better than a casual dealer's demonstration.

So let us not be put off by the "no US support" thing. The American dollar is still OK, and British companies want our money. Or, if the US distributor does not provide phone support, so what? It's nice to have it, but we can do without. As long as someone out there keeps writing programs you can use and enjoy, you can get the software you need. All it takes is a 50-cent stamp, a short letter and credit card number. Provided, of course, that you know enough about the program—but this is up to the people who publish and who write for the Atari magazines. Can we do something here?

■■■■■■■■

[Otto's Resource Construction Set, CN #730, $4.00; CN Library, 122 N Johnson Rd, Sterling, VA 20164.]

Moving Toad, Making Tadpoles

Some of you may know me in my official capacity as part-owner of Toad Computers. Writing in that capacity, we recently moved our store, and the story of the move is filled with melodrama and feigned agony—as well as some genuine tough decisions. While it may seem that this story is of singular importance to Toad Computers, other dealers (and end users) may find our rationale interesting.

Growing in the Atari Market

We'd been in our previous location (i.e. humble location of 1,000 square feet) since 1988. In 1988 it seemed a challenge to fill it. We had a 1040, a 130XE, and about a hundred software titles. Of course, we grew over the next few years, and we became increasingly adept at stacking, boxing, bundling, and creative hanging.

We even signed another three-year lease in June of 1991. Sure we'd grown much bigger, but by storing our bulkiest stock (and supplies, like empty cardboard boxes for shipping) off-site, we were able to keep our store manageable. That was the same month that we began work on our first large scale direct-mail effort—our first catalog.

Well, by fall the catalog was out, the Christmas rush had begun, and we were rapidly becoming extremely cramped. (You could feel the fish oil being added, as if in the final stages of the packing process at your local sardine manufactory.) To avoid being shipped away for sale to the discerning fish-consumer, in December we began looking for a new location.

Learning Our First Lesson

In December 1991, in our humble ville of Severna Park, there were about 20 empty retail locations which fit our description (bigger, larger, and cute). And the economy was such that we felt we could get a good deal (low retail occupancy, low interest rates, desperate real-estate agents, et cetera). There was one space in particular that caught our eye—directly across the street from us and about four times bigger (3,748 square feet).

That location was shaped like a giant L. There was a long "retail" space, and in the rear (the base of the L), there was a giant (read "cavernous") storage room and office area. And the ceiling was about 17 feet high—room enough for a second floor!

Our county's building code stipulates that in that type of building, a mezzanine floor (our planned second floor) can not exceed 1,200 square feet (1/3 the space of the ground floor).

The place had not been rented since 1986, when it was a real-estate office. A woman had signed a lease shortly after to start a "body-salon" and health food store there. One night (before the lease was signed, incidentally), she and her boyfriend flipped out on LSD and demolished everything in the place and took it to the dump. That included walls, ceiling tiles, and asbestos (real smart) floor tiles. Shortly after (and after the lease was signed), the woman skipped town. And her mother, a cosigner on the lease, was sued to shreds.

This retail gem was left in the condition that LSD-girl left it—no walls, cement floor, no ceiling, no plumbing. So, gallant Toad Computers, emerging from a flat local economy, offering to take this hard-to-rent puppy off of the no-revenue list, seemed a strong temptation.

We made plans for our second floor, for the first floor, and numerous phone calls to get contractor quotes on the buildout. The landlord had promised to pay for everything but the second floor to be built—and it looked as if the second floor would not be prohibitively expensive. I was busy with school, and creating our next catalog. And since that space hadn't been rented in six years, we took our time to do our planning right. Fatal Error #6.

When we were ready to sign a lease in May, Francis (a virile woman whose glares could freeze mixed drinks, also the property manager) decided that the bids we'd obtained for the work were too high, and within a week, "her guy" had bid the job at about $30,000 less than our previous bids. Cool. But by then, another player had entered. Keep in mind that by then (May), there was about half as much available retail space here.

The other player was identified for a long time as "the carpet guy." Yep. He had a carpet store. Just what we need-more carpet. And you can bet that it would be a heck of a lot cheaper to put in a carpet store than it would for them to set us up to our specifications, what with the second floor and all.

To make an extremely long story short, we didn't get the place. It would have been a lot easier to take if the realtors had been honest, if the landlord there had been honest, and we had been kept informed of what was going on. But even though we had submitted a letter-of-intent before anyone else, what it came down to was money. We spent too much time "doing the right thing," and all the landlord wanted to see was who would be cheaper to get operational. Needless to say, they didn't consider which company might make a more significant long-term contribution to the community. It would not be unfair to say that 90% of the people involved in that deal were either dishonest or stupid, or both.

A New Home for Toad Computers

So there we were in late May, with a brand new set of even-bigger catalogs going out, and very cramped indeed. And the cards were stacked against us. Our local economy had recovered a great deal (as I said, there was much less available retail space). And we were going to have a hard time finding a place as cheap as our previous find.

We started calling around like crazy. Jennifer and I spent about two weeks looking at places. There was a 5,000 square foot post office that was closing, an old house attached to a shopping center, a bike shop, and many others. But the "diet place" is what finally caught our eye-but would it be too expensive?

The diet place was about 1,000 feet from our old location and about 4,000 square feet. The diet place had been operated by our local hospital, but was closed due to program budget cuts. Unlike LSD-girl's place, this location was divided up into two halves. One half was a large open room with an office overlooking it (via a large window). The other half was divided into several mid-sized rooms, and two large rooms. It was very tempting, indeed.

We'd always wanted to have a classroom. We'd always wanted to have offices. We'd always wanted to have a stockroom. An eight-bit room. A repair lab. You get the idea.

The only banana-peel was price. The diet place was in a new, modern shopping center (built 1987). The giant Texas-based developer, Trammel-Crow, owned the shopping center. And as we all know, they can be unrealistic.

The advantage that we had here, though, was that we required no buildout. We loved the place as it was—with its spacious rooms, beautiful carpet, vast windows, and 10-ton polished-pine doors, it was perfect. So we traded our reduced initial cost for reduced rent, which is better for us.

We worked furiously ("propose $2,000 cheaper," was bandied frequently) with Trammel-Crow and our Luke Skywalker-like real estate agent for about two weeks, and by the end of June the lease was signed. We moved in in July. We even squeezed some free rent out of them. And the price was significantly less than our original location.

The Birth of Toad Music

Things were starting to come together. The only thing that had to be resolved at that point was what to do with our old location. We'd signed a lease that would not expire until June 1994, and while the landlord was flexible about another party taking over the lease with no penalty, it was still our responsibility to *find* another party, which costs money. We got to thinking that maybe it wasn't so smart to give the place up.

A friend of ours, Alex, (who had been working as a buyer and manager at Tower Records in Annapolis for a year) had expressed interest in starting a specialty music store in the location, but was reluctant because of the risk. We thought the idea was great, but despite our encouragement, he still felt the risk was too great. Jennifer and I decided, while on a short canoe trip one evening, that we would start the music store ourselves.

We wanted to sell compact discs and Atari MIDI equipment, and perhaps Lynxes there. A recent survey revealed that the only thing Severna Park residents felt was missing from their community was a music store. So the risk wasn't that great—the lease had only two years remaining, and the worst you can do is end up with a bunch of CD's. And similar stores in the region thrive.

After re-convening with Alex, he decided that he would be willing to share in the risk with us, and so Toad Music, Inc. was formed. This was perfect. Alex could manage the music store—and to top it off, he's an Atari MIDI nut!

The same night as the canoe trip, Jennifer and I made up a schedule for the summer. We would open Toad Computers at their new location in early July. We would open Toad Music by August 1st. And amazingly enough, here on August 7th, I can tell you that we stuck with our schedule. We pulled four all-nighters in the last 30 days. But the work is done. And Toad Computers and Toad Music are both now in a position to make money!

We Wanted a Retail Outlet

People have said that because most of our income is generated from out-of-state, mail-order sales that we should have moved to a cheaper warehouse location. But I don't think that is really fair to our customers. When you want to shop for a microwave oven or a TV, you don't go to a warehouse, you go to a retail store. To relocate to a warehouse would be tantamount to taking out a print ad that says, "Atari Computers are not fit for the mainstream market." That's not what we believe. There also is no warehouse space in our immediate area. I feel a responsibility to our local area-my hometown. Relocating to

another area would remove whatever influence I might have as an everyday resident. (It's one thing to sell snake-oil in your hometown, but it's another thing altogether to sell snake-oil three towns over.)

Other Atari resellers should consider that having a place where customers can come and look at hardware and software is an important part of being a responsible dealer and in the end, making the sale. Making a commitment to be in one place means that a customer can trust in you, build a history with you, and ultimately buy more from you. Otherwise, there's no accountability. And for all the customer knows, you can skip town whenever the heat is turned up—just like LSD-girl.

Anyway, you've heard the saga. The scumbag realtors are why it took us six months to move (and we thank divine providence daily that things went the way they did). Alex (and our lease) is why Toad Music exists. And now you know why we're so excited. We're finally in a position to fully (and enthusiastically) support every aspect of the Atari, and thanks to Toad Music, we're now *really* supporting MIDI.

Between our grand opening and our moving sale, we pulled in about 500 people. That was very promising. Thanks to our new location, we're holding this "Fest before the Fest" event, before the WAACE Atarifest. That, too, should be very promising, as several notable guests have already agreed to attend. We're also now sponsoring pseudo user-group meetings, classes, and more. And it's all thanks to the new location. Those interested in a complete roundup of our activities should read file #25048 on GEnie's ST roundtable. But again, our new location is making the impossible possible.

Link Will Be Hot

Sure to be the hot product this fall is ICD's "The Link." As you probably know by now, it's an *external* SCSI host adapter for Atari Computers without true SCSI ports (everything except for the TT030 and Falcon). The LINK is revolutionary for two reasons.

First, it's external. That means that Mac (or PC) external SCSI devices with 50-pin Centronics connectors can be used, *without even opening their cases*, directly on the ST. The Link simply plugs into the rear of the drive and translates to a DB19 for connection to the ST's DMA port. Right away, you're opening doors to the hundreds of external SCSI drives available for Macintosh and PC.

The second reason you'll lust for The Link is the software ICD will be bundling with it. Because they now support full 16-bit SCSI, they've been able to write drivers for Atari's Metados which support CD ROM drives. So now, just about any standard SCSI CD ROM drive can be used on any ST. This is way cool.

ICD's new software also supports the Insite Peripherals 21MB floptical SCSI drive. For those of you who are unfamiliar with floptical technology, a standard 3.5" high-density disk is embedded with "optical" tracks, which are read by a laser in the drive. The optical tracks are used not for data storage (as on CD-ROMS) but rather for alignment of the standard magnetic head in the drive. By using this precise optical alignment technology, data can be reliably stored in the magnetic dead zones between tracks on standard diskettes, vamping their capacity up to a whopping 21MB. The drive formats just like a Seagate ST225N SCSI drive. But in addition to this high capacity mode, ICD's new software gives the drive the ability to read standard 720K and 1.44MB disks! Tired of funky hardware mods just to be able to read PC 1.44MB disks? The Insite drive requires no modifications and will read your standard ST disks, 1.44MB ST or PC disks, as well as the super-high capacity 21MB disks. Again, The Link and its associates will be very hot products.

Of course, the Falcon's official public release in Duesseldorf will be watched worldwide by Atari nuts. I will be there (two weeks from today), introducing our new Stealth SCSI hard drive subsystem. They're custom designed to be small, portable, and will work on the TT030, Falcon, or any ST (via *The Link*). Expect those out in September—regardless of the Falcon's release date.

See You at the Fest (Before, or Otherwise)

I hope to see y'all at both our event (to check out our new location, nudge nudge) as well as at the WAACE Atarifest. Those who think that the Atari market is in any way slow or dwindling, think again—we're having a grand old time. All you need is the right attitude.

Show Information

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WAACE Atarifest:
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Sheraton Inn, Reston, VA
10:00 am—6:00 pm
Contact Charles Hoffmann
(703) 629-6734

Toad Computers
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8:00 am—10:00 pm
Friday October 9, 1992
8:00 am—5:00 pm.
Toad Computers
570F Ritchie Highway
Severna Park, MD
Call (410) 544-6943

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How to Reach Me:

Phone: (410) 544-6943
FAX: (410) 544-1FAX
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The Junkyard Pussycat

by John Barnes

Cultural Impoverishment

The Junkyard Pussycat's readers will be seeing this column in early September, soon after students all over America return to their classrooms. It seems like as good a time as any to address a couple items related to education.

The Demise of the Heathkit

The Pussycat and millions of his contemporaries found electronic assembly kits to be an essential part of their adolescence. One could take the pennies laboriously saved from one's paper route to the local outlet for Heathkit, EICO, or a couple other companies and bring home a carton filled with vacuum tubes, knobs, switches, screws, pre-drilled chassis parts, and circuit diagrams.

With a soldering iron, a few nut drivers, and suitable wire cutting tools one could follow simple instructions and assemble all sorts of electronic devices ranging from a simple electronic multimeter, up through stereo components, and on to color TV sets and oscilloscopes.

Exceptionally careful and dexterous workers could get the items to work as soon as they were plugged in, but many others had to turn to the troubleshooting section of the manual for help in finding the miswired parts of the circuit and correcting the problems. Along the way people could pick up a few bits of knowledge about electronics.

One of the Pussycat's *Current Notes* colleagues, a person of tender years but exceptional maturity, recently informed him that Heathkit, the company that set the standard in this arena, has gone under completely. The company was undoubtedly beset by financial woes, but it also seems that several cultural and technological changes contributed to this.

While everyone looks back fondly on the things they did as a youth, the Pussycat feels that the loss of Heathkit and its kin is a special sign of the gradual cultural impoverishment of our nation. Developing minds will have less opportunity to hone their mental and motor skills with the kind of fine work that is needed to make electrons follow their appointed course to amplify signals snatched out of the sky.

Technological Change

Heathkit must be viewed, at least in part, as a victim of technological progress. The bulky VTVM's (Vacuum Tube Voltmeter) have been replaced with an array of cunning microchips encased in a plastic box the size of a pack of cigarettes. The modern multimeter switches ranges automatically and displays its readings to 3 or 4 digits on an LCD. A single 9-volt transistor battery replaces the wall socket and power cord. Indeed, there are now devices that display AC waveforms in LCDs, thus reducing the need for bulky and expensive oscilloscopes.

One shudders to think what the inflation-adjusted price of a VTVM kit that cost between $40 and $50 in the 1950s would be today. The move to integrated circuits and improved packaging have kept the price of these tools within reason. It now makes more economic sense to have Mexican labor assemble the small number of chips and printed circuit boards into a finished product than it does to dump them into a box for assembly by the end user.

As devices have become smarter, assembling them into workable gadgets has become more demanding. A few electrons from a bolt of static electricity will destroy many of today's integrated circuits, so that working with them requires increased care. Increased sensitivity requires that signals be routed more carefully to avoid interference. The high frequencies needed for digital processing must be shielded to avoid pickup by other sensitive devices nearby.

This progress has come at a price, as anyone who has lost his computer system to a power spike can attest. The march of solid state technology has, however, been inexorable. It still pains the Pussycat to trash an appliance because it costs more to repair it than it does to buy a new one with a newer generation of chips inside. Computer technicians these days are often electronic illiterates who simply swap boards. And, finally, woe betides those whose under-the-hood microprocessors die while on the way to Ocean City on a hot summer's day.

A few years back the Department of Defense was wondering whether the vacuum tube circuits in Soviet aircraft were actually a clever adaptation to the electromagnetic pulse effects that might blind many U.S. smart weapons in nuclear war.

While we are waiting for more robust technology we are at the mercy of the people who write the computer programs that design the chips. Given the widespread concern with the "dumbing down" of our

school populations, one wonders if there are enough people with the smarts to do this work.

Distractions

When one looks at what kids do these days, one wonders if we are giving youngsters the motor skills and the intellectual stimulation needed to become engineers and scientists. The Heathkit generation had the time to sit down at a workbench with a soldering iron because they were not distracted by television or computer games. They also were not forced to compete in spring, summer, fall, and winter soccer leagues. If they were restless, they could open a book and let their mind's eye supplement the contents of the printed page.

It now seems that a restless child trots off to the Nintendo console and allows someone else to create his images for him while wreaking mayhem with tools no more sophisticated than a joystick and a fire button.

A university professor friend of the Pussycat's was passing through the other day and lamented that the new generation of college students lacks the ability to manipulate objects in three dimensions, thus greatly complicating the task of teaching crystallography, a subject basic to many fields. Has the flat screen really entrapped young minds to such an extent?

If, indeed, the imagery in young minds is exclusively under the control of the TV and computer game writers and if, indeed, young people have nothing better to do with their hands than to turn on the TV or push the fire button, our society is surely poorer than it was just a few years ago.

Don't Teach Your Kids to Program

The same university professor friend of the Pussycat's also stated that he was slated to teach a course in computer programming for chemical engineers in the coming term. This, of course, brought the Pussycat back to one of his perennial pet peeves.

People should not be taught to program computers. The Pussycat feels that *People should learn to program computers when they need to in order to solve problems that interest them.* What's the difference between the former activity and the latter? In the second case, the desire to learn and the subject content are driven by needs that the student feels. In the first case, the process is driven by some educator's idea of the student's needs. It is not too hard to see that these are often very different.

Over time, computer scientists have tried to make their trade respectable by building an abstract intellectual base for it. Writing computer programs becomes an end in itself. The chemical engineering department at the professor's university apparently recognizes this and is not willing to subcontract the task of teaching computing out to the computer science department. What should they do instead?

The Pussycat suggests that they integrate the use of computers into all of the problem solving activities that engineers encounter in the course of their education. Freed from the quandary of deciding whether to teach QuickBasic, Pascal, or FORTRAN, or all three, educators will have more time to teach their subjects. Use the tools that are most appropriate to the problem at hand. Let the students mature in their scientific sophistication to the point where they themselves decide which tools are the best for the problems they have to solve.

This model assumes that students have computers close at hand when they need them and that the computers are outfitted with a variety of software tools. It also assumes that the educators have adapted those tools to the needs of their curricula. These are not easy tasks and it is often simpler to say, "Let's teach the students programming and hope that they come up with things that we can use." It is obvious that this later approach represents little more than wheel spinning for the students.

The Pussycat suspects that it is also counterproductive because the tedium of learning to program will only seldom be relieved by the joy of discovery that comes at recognizing when a problem has been solved. Students already have plenty of rote learning to do without being burdened with more of it.

Rote learning is no longer recognized as a good way to study foreign languages. It is far better to converse, read, and write as befits one's needs. Human languages have their own grammar, vocabulary, and sets of colloquialisms. It is the same with computer languages and learning these in an isolated context is just as unrewarding.

The model in which learning is driven by the need to solve a problem has served the Pussycat well over the 30+ years he has spent in his career. He has observed the way it works in others and finds it to be far more satisfactory than the spoon-fed alternative.

Non-Programming Tools

For many introductory purposes in education one does not need to know how to program in order to use a computer. Spreadsheets are a very good example. The Pussycat finds them an excellent tool for crystallographic work because a change in one parameter of the structure is instantly reflected in the outputs. A statistical spreadsheet lays out all of the data at the same time it presents the summary statistics. Quick plots are possible with a few selections. There are many models of phenomena in astronomy, chemistry, and physics that can be expressed in simple equations that are easily laid in spreadsheet form. Organizing data so that its significance can be grasped at a glance

is an important skill. Spreadsheets promote this without the tedium that is associated with formatting output from even the simplest BASIC program.

Symbolic manipulation programs like *Theorist* and *Mathematica* are also powerful tools. The equations that represent the phenomenon being modeled are always at the forefront in these tools. This helps the user appreciate the way in which assumptions and changes in parameter values affect the outcome without getting buried in the details of FOR-NEXT and other constructs.

Laboratory data collection is an area where programmers once reigned supreme. Nowadays, we see tools like *Lab Tech Notebook* and *Labview* that modularize this operation by allowing the user to connect computer-controlled instruments together in a fashion that emphasizes the character of the experiment rather than the program that controls it.

Programming as a Craft

There is more to programming than simply writing down a bunch of statements and compiling them. Some people have the knack; others will never acquire it. Proper debugging takes a lot of patience. Experience is often the best guide to the most likely approach. Techniques that work for one programmer sometimes fail for others. Given these observations it seems best to think of programming as a craft that must be practiced rather than as a subject, like algebra or chemistry, that can be taught (although not everyone is capable of digesting these, either).

The Pussycat has seen too many of the summer interns who have worked for him throw up their hands over programming mistakes without ever trying to puzzle out the sources of the problem. It seems that they want instant gratification. They fail to appreciate their own capacity for making errors. If their first approach does not work, they want to switch to something else rather than bring the problem to a solution.

This seems like another version of TV channel switching. For many of them their summer work is their first experience with the necessity of bringing a significant task to completion. Their public school teachers have frequently praised half-completed efforts so that they could move on to give a few minutes to the next student.

A properly chosen problem in science or engineering becomes the motivator to force its own solution. Curiosity as to the form the answer might take has kept the Pussycat awake through many a long night, with the beauty of the answer as an ample reward in dawn's early light. The Pussycat envies today's students for the tools that are available to them for acquiring a mastery of complex subjects like astronomy, quantum theory, and electromagnetic radiation. Mere "chicken tracks" can be transformed into illuminating images on the screen.

The technique of learning by solving problems has probably not changed in the last 30 years, but the problems may have become more complex. Phenomena that were overlooked in the rush to derive equations for closed form solutions can now be explored in exquisite detail. One wonders, however, if the idea that the planets' movements are chaotic is more comforting than the old music of the spheres.

When to Program

There finally comes a time in the life of a scientist or engineer when the problem at hand becomes complex enough that one is forced to sit down and write a program. Given that computers only do what they are told to do, the programmer must accept the responsibility for developing an efficient and correct method for solving the problem. He must then code this solution into a set of instructions that the computer knows how to interpret. This coding process will be guided by the syntax of the programming language, the vagaries of the compiler, and the ability of the computer to do simple arithmetic.

■■■■■■■

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STARTING BLOCK
by
Richard Gunter

Fragments and Dungeons

This month, we're returning to the ever-nagging concerns over maintaining hard drive contents; but first a word about this Atarian's favorite dungeon.

IBM Dungeon Master Is Here!

On Saturday, August 1st, I visited my friendly neighborhood Atari dealer and saw (on the PC side of the room) a box wearing familiar cover art. Yes, the PC version of *Dungeon Master* is finally out!

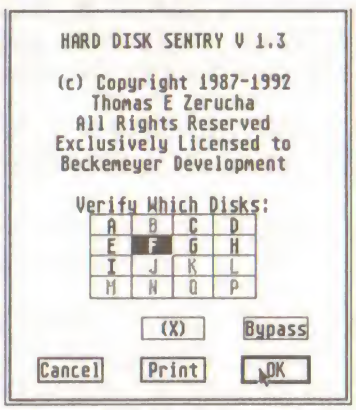
There's a piece of hardware in the package; according to the box illustration, it seems to consist of a multi-pin connector with two short cables on the other side. Early word from FTL had been that the PC version would not require any additional hardware. This must be it.

Congratulations to FTL Games for getting this package out the door; it's been a long time coming (nearly four years?).

Folks have suggested that others have improved upon FTL in games released the last couple years or so. I think that if FTL adhered to the same standards of excellence with this PC port as with the original, it'll be well worth the attention of PC gamers. *DM* fans will be hoping this is a signal of renewed US activity from a fine team of game builders.

Return of the Defraggers

The April 1989 issue of *Current Notes* carried my article on managing a hard disk drive's contents. In other columns, we've discussed the value of hard disk optimization programs, or defraggers. The one I've used for several years is an early version of *Tuneup!* from Michtron, and it has served me well. This program was later bundled with some other Michtron programs and marketed as their *Toolkit*.



I recently purchased a bigger hard drive and began to wonder if my old version might have problems with partitions bigger than 16MB. Oops. I figured it just might be time to replace that ol' trusty program with a newer model: Beckemeyer's *Hard Disk Sentry*.

If You Just Came In...

Any hard drive will eventually experience fragmentation, which is a condition that occurs because of the way the system's file management software allocates space to a file.

The system maintains tables on the drive which serve to keep track of what portions of the disk are currently allocated to which files and the location of available space for new files. There's also information on how the sectors are chained together, defining the ordered string of data that is each file.

As files are created and deleted, these "free" areas get kind of chopped up, with chunks of available space scattered around the disk. New files also get cut into pieces as the system looks for and allocates space for them. This phenomenon is called fragmentation.

When you're reading a file that is seriously fragmented, the drive's read heads may have to move around quite a bit in order to read the file in the correct logical order. This eventually starts to slow down the process. The same sort of thing happens when you're creating files as the system searches out free space for them.

On the Atari ST machines, versions of TOS earlier than 1.4 slowed down dramatically when the disk became heavily fragmented. This was due to inefficiencies in the disk management software. TOS 1.4 and later versions fixed this problem, but fragmentation can still have an observable impact on system performance.

What a defragger does is rearrange the files on the drive so that the file is stored in contiguous sectors (actually groups of sectors called clusters). The program also gathers up all the free space into a contiguous set of available clusters. Also at issue is where the free space is concentrated: at the beginning of the disk or at the end (high addresses). The former allows the system to find free sectors more quickly, and works best for active partitions and the older TOS versions.

Beckemeyer's Hard Disk Sentry

The *Hard Disk Sentry* package consists of two programs: a disk surface analysis program (DT.PRG), and the Sentry program itself (SENTRY.PRG). There's also a third program that is supposed to be used with *pc ditto*; I won't be talking about that one.

Disk Surface Analysis

The purpose of this program is to scan the disk for bad (unusable) clusters. According to the manual, this program is capable of marking the bad sectors as a temporary measure in recovery. Neither the disk analyzer nor *Hard Disk Sentry* is capable of truly mapping the bad clusters out. The manual stresses that only your low-level disk formatter is capable of doing that.

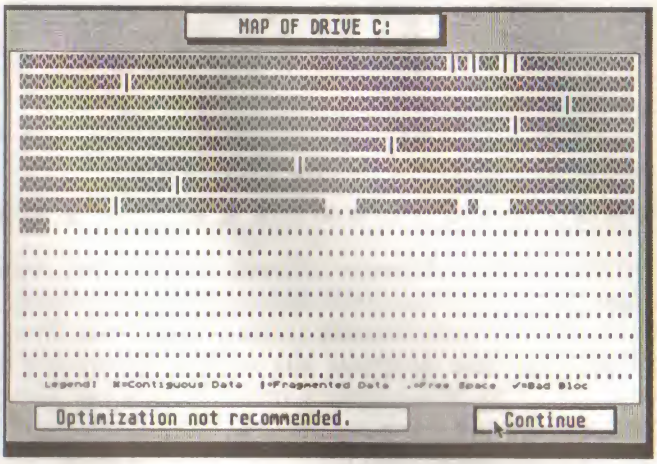
The disk analyzer does take a while to run, since what it does is read all sectors on a partition (thousands of them). An option will perform a non-destructive write operation instead of a simple read. This consists of reading a sector, writing it back, then reading it again to verify the sector is fully operational. This can be dangerous if your system is sick.

The manual is careful to identify the risks in all the *Hard Disk Sentry* and disk analyzer operations, so it's important to read it carefully. It's short--20 pages.

Hard Disk Sentry

The *Hard Disk Sentry* program performs an extensive analysis of the directory and FAT (File Allocation Table). It can identify and attempt to recover "orphan" files--those which appear as a chain of clusters in the FAT, but which have no directory entry.

The statistics display reports the results of the FAT analysis, and the map gives a symbolic representation of a drive's contents. The program also gives its recommendation on whether or not the defragging (optimization) step should be performed. This is a nice feature, but your judgement can override the program's recommendation if you wish.



The Manual

As mentioned above, the manual is brief but comprehensive, providing adequate instructions and explanations of program output and operation.

Recommendation

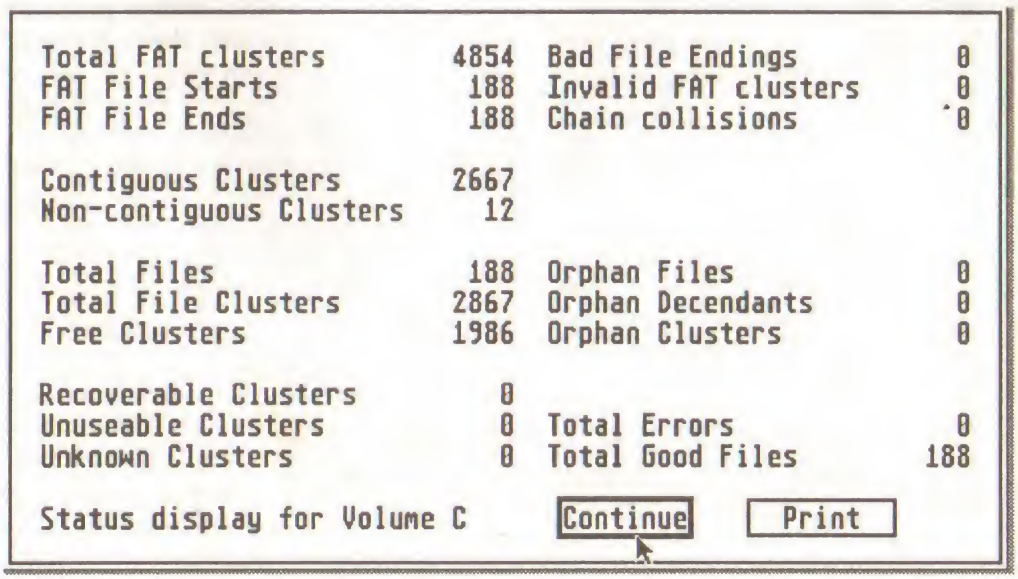
Using this kind of program is a little like going to the doctor; one hopes the diagnosis is that of robust health. No errors, no broken files, no files contaminated by bad sectors, and no recovery needed.

Fortunately, my drive is quite healthy, and I have no urge to break something in order to find out how well the recovery features work. *Hard Disk Sentry* and its companion analyzer seem to work smoothly and well; the word from several folks on CompuServe is that it is reliable. Recommended.

I'd like to stress that *Tuneup!* has never messed me up either; but my version may just be a little out of date and its graphic display for a large partition didn't look right. Hence, my move to *Hard Disk Sentry.*

A Freeware Analyzer

The Beckemeyer folks have released a freeware version of the analysis section of *Hard Disk Sentry.* This is not the disk surface analyzer; it's the FAT analysis and symbolic report part. It's not capable of doing the defragging operation, but will indicate whether you need a defragger. Naturally, the display includes a plug for *Hard Disk Sentry.* If you don't already own a defragger, this program can tell you whether you need one.



FINDEX V

Data/Text Storage & Retrieval System

by Don Elmore

I have *Data Manager ST,* and *Superbase/2.* I've even tried *dbMan* in a couple of its iterations. But, which data base program sits on my "C" Drive and contains those modest files and records that I access on a fairly regular basis? *Findex V*! Why? Well, the main reason is ease of use. I am able to enter and save data and actually find it again when I need it. I know that virtually any of the data base programs are designed to do that, and more... but, as *Findex's* literature says, "*Findex V* is as complicated or simple as you want." It is.

Findex V compares itself with both "Flat Field" and "Relational" data base programs, and claims to approach accessing and managing information from a totally different perspective. *Findex V* calls that perspective Multiple Keyword Logic (MKL). MKL claims to handle information the same way that the human brain does, e.g. "without conscious set-up procedures, handling information in an unformatted, disjointed ... UNLIMITED manner." Yet, like your brain, with the simplest reference, you can find, link and organize what information you want.

Now, when you start talking about Flat Fields or Relational or even Non-Relational data bases, you quickly lose me. And, if I had read the MKL description, I admit that I probably would never have purchased the program. A friend showed me *Findex V,* and when I saw it in action, I figured it would handle all of my data base needs nicely, thank you, and then some.

The excellent instruction manual describes *Findex V* as ranging from a box of index cards to a "field-less multi-dimensional, flexiform data base." I don't know about the latter, but, what you see when you first enter a record is a blank screen with a blinking cursor in the top, left-hand corner. There are no "fields."

Findex V does not require records to be structured identically (unless you want them to be). The screen shows the first 20 lines, and each record can be scrolled down through two more screens, giving a total of 60 lines per "page." If you need more for any record, you can continue on a second "page." Yet, if you want to establish a formatted data entry, say a mailing list with specific fields; name, street address, city, State, etc., you can set up a data entry format, as I did in my Xmas card list.

But, since a picture is supposed to be worth a thousand words, let's see if I can better explain the program by showing screen dumps of some of my files. A good example of the "formatted data entry," is my Christmas list file (see figure 1). I have 70 records in the file and they are entered by filling in the fields that I set up for the record (figure 2).

Let's start by examining the **Status Window** in figure 1. The default for the **Filename** is Noname, until you save and name a particular file (like I did with "xmaslist").

The **Space open** line tells you how much space is available for records. Initially, I had 262,144 bytes available. Everycharacter in a record uses one byte. I have 70 records in the Xmas file and 248,552 bytes remaining.

The **Tally line** refers to an arithmetic function. You can tell *Findex V* which line to look at and find a value to add. I am not using this particular function in my Xmas file.

The **Order line** (default is 0) is used when you sort your records. If I were to sort the Xmas file on the zip codes (line six in figure 2, the Order Line would indicate 6.

The **Case sense** line is a handy tool. It defaults to *Yes*, meaning that upper or lower case must be matched exactly when a search is made. I turn the sensitivity off so that the case of the letters will not matter in a search.

The **Output Format** (default is blank) indicates a specific sequence in which a record is sent to the printer, or to a disk. Each file can have as many as 16 different formats. As you can see, I have but one (which I named Xmascards). Why different formats for output? Well, you might want to print out the entire file, and then also print

```
                                                          04-Aug-1992-
        FINDEX INFORMATION STORAGE AND RETRIEVAL SYSTEM

Enter a search command...  Separate Multi-Word commands with AND, OR, NOT
                           WITH, WITHOUT  or enter a Command Option...

Command Options:
DEFO  Define Output Format
SORT  Sort File
NNAM  Give File NEW Name
RST   Restart (EMPTY) Database
ADD   Add New Record
ADD/  Formatted Data Entry
CHAT  Change TALLY Line
TOKN  Edit TOKEN File
MORE  More Commands

        * * * STATUS WINDOW * * *
Filename:xmaslist    Aug. 04, 1992
Space open: 248552   Records: 70
Tally line: 1        Current TOP: 1
Order line: 0        Baud: 1200
Case sense:no        Nth Select: 1
Output Format:xmascards
Disk Output Filename:
Current Active Drive: C:

For GROUP functions, append the search command with:
\D GROUP DELETE     \T GROUP TALLY     \W GROUP WRITE(DISK)
\S GROUP STATS      \P GROUP PRINT     \O GROUP SERIAL OUT

Command? |
```

Figure 1.

```
/Name:                                                    04-Aug-1992
Aka:
Street:
City:
State:
Zip:
Country:
Telephone:

Info-88:
Info-89:
Info-90:
Info-91:
Info-92:
Info-93:
Info-94:
Info=95:

Comments:
_______ Current count: 1 ____________________ Current Sum:0 _____________
ENTER/Search More    N/New (Main Menu)    R/Restart Search    D/Delete Record
E/Edit Record        A/Add New Record     C/Copy Record       M/More Commands
Search for: *
Option? |
```

Figure 2.

only the name and address fields (for labels). Yes, Findex V will print labels if you want it to. Or, you might want to have one printing of just the family's name and the yearly statistics. So, you can select up to 16 different ways to print your file.

The **Disk Output Filename** (default blank) requires that you name a file before it is printed to a disk.

The **Current Active Drive** is self-explanatory. It shows from which drive you are loading files and to which drive you are saving them. Drives can be changed by one of the command options.

The **date** depends on your computer system. If your computer can read a date anywhere, *Findex V* will display it on the screen as shown in figure 1. Again, the command options can be used to change the date, should you so desire.

Records shows the number of records that you have created in the file.

Current TOP indicates which record line will be at the top of the screen when a record is displayed.

The **Baud** line is also self-explanatory. It defaults to 1200 but can be changed so that transmission speed matches the speed of the receiving computer.

Nth Select allows you to print only certain records in a file. Default is 1, but if you want every third or fifth record printed, you will have to change the default. This particular function only works in the **GROUP** functions.

There are actually three columns of command options listed at the left of the initial screen. You access the other two screens by typing **MORE** (the last command). The commands are clearly explained in the instruction manual, and in the interest of conserving space, I will not describe them individually, as I did with the status window.

Now, as for some examples of my files (how I use *Findex V*) remember that figure 2 represents a formatted entry set for my Xmas card list. Figure 3 shows one of the records in that file. There is a powerful search option. If you wish to simply browse through the file, type an asterisk and then hit [Return]. Each time you hit [Return], you are moved to the next record. If you want to go directly to a specific record, then enter a search command, as I have done. I typed "raimundo," and *Findex V* went immediately to the Escallon record. I could just as easily have typed "rai," or "mund" and it would have done the same. If there are several records containing your search string, *Findex V* will pull them all up and you cycle through them by hitting return, until you are advised that there are no more records fitting those search parameters.

At the beginning of each Christmas season, I print out a complete listing of the entire file. Than as Christmas cards arrive (and as we send them out), I note each "transaction" on the printed list. Then, after Christmas, I key in that year's data of cards sent and received.

Figure 4 is one record in my "Restaurants" file. On the first Saturday of each month, some friends and my wife and I try a different ethnic restaurant in the Capitol area. Using the sort command, I choose the line of the record I want to sort on and can thereby list the restaurants by their name, the type of food, addresses, etc.

Figure 5 is one of 27 records in my "Skiing" file. The ski area records tend to be the largest records that I currently have on *Findex V.* This file is a good example of a free-form record format. I update it annually from data

```
Escallon, Raimundo & Maria T.                              10:15:46 PM
Escallon
Transversal 2 #112-23
Bogota 10


Colombia


1988  Nada
1989  Nada
1990  S x R x
1991  S x R x
1992  S   R
1993  S   R
1994  S   R
1995  S   R


_______ Current count: 1 ____________________ Current Sum:0 _____________
ENTER/Search More    N/New (Main Menu)    R/Restart Search    D/Delete Record
E/Edit Record        A/Add New Record     C/Copy Record       M/More Commands
Search for: raimundo
Option? |
```

Figure 3.

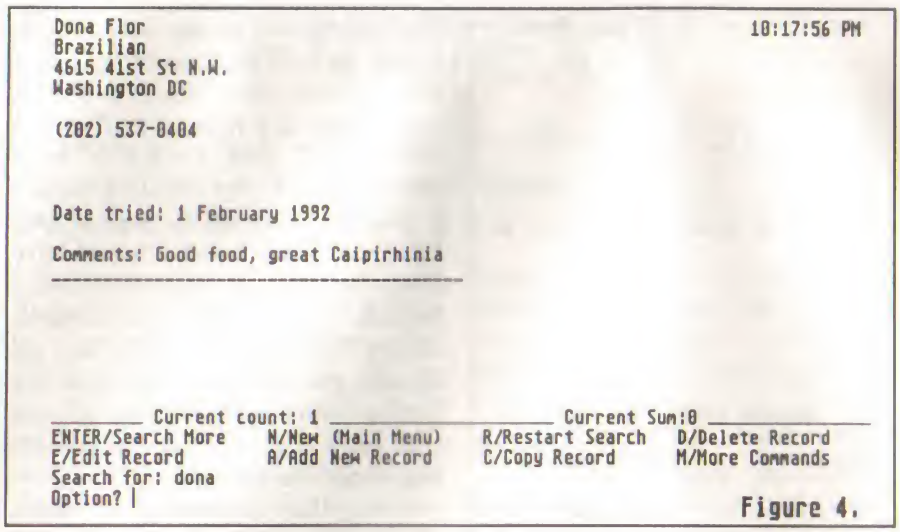


Figure 4.

printed in the Washington Post. By using *Findex V's* extremely powerful search commands, I can tell *Findex V* to show all of the ski resorts/areas that are within 175 miles of my house, that have at least a 500' vertical drop, night skiing provisions, and with hot tubs (in the resort hotel). There are three, by the way.

Using multi-word search commands gives you the ability to retrieve exactly the information you want. Suppose you have a large data base of names and addresses and you want to be selective in retrieving some records.

Smith - will find every occurrence of Smith.

Smith AND Portland - will bring up every record that contains both Smith and Portland.

Smith NOT Portland - finds every record containing Smith except those that contain both Smith and Portland.

Smith AND Portland NOT Maine - finds every Smith from Portland except those which contain Maine. Like Portland, Oregon for example.

By adding **WITH** and **WITHOUT**, you can do "position" searching. For example:

Smith WITH 3=AL - locates every record containing the word Smith, but only if it finds **AL** on line 3.

The uses for *Findex V* are only limited by your own imagination. I have a recipes file, automobile maintenance file, etc. As mentioned previously, the instruction manual is well written and there are two tutorials that will have you up and running (literally) in five minutes. You can print out reports, there are powerful mail merge functions, and as mentioned above, you can also print labels if you so desire. Oh, by the way, not only is the manual well written, it is humorously written. Tom Woods (writer and editor of the manual) includes many personal anecdotes and tips and really helps answer questions from users like me.

Are there downsides to this program? Yep. One feature that I don't like is that *Findex V* is not GEM based. All transactions must be performed via the keyboard, no mouse. I guess that another downside is the availability of the program. The only place that I have been able to find it is listed in the E. Arthur Brown Computer Enthusiast Catalog. It is priced at $49.95 and is, in this writer's opinion, well worth it. If you want a relatively simple data base program, whose performance is rock solid, I recommend *Findex V.*

The E. Arthur Brown Company is located at 3404 Pawnee Drive, Alexandria, MN 56308. Telephone (612) 762-8847.

▪▪▪▪▪▪▪

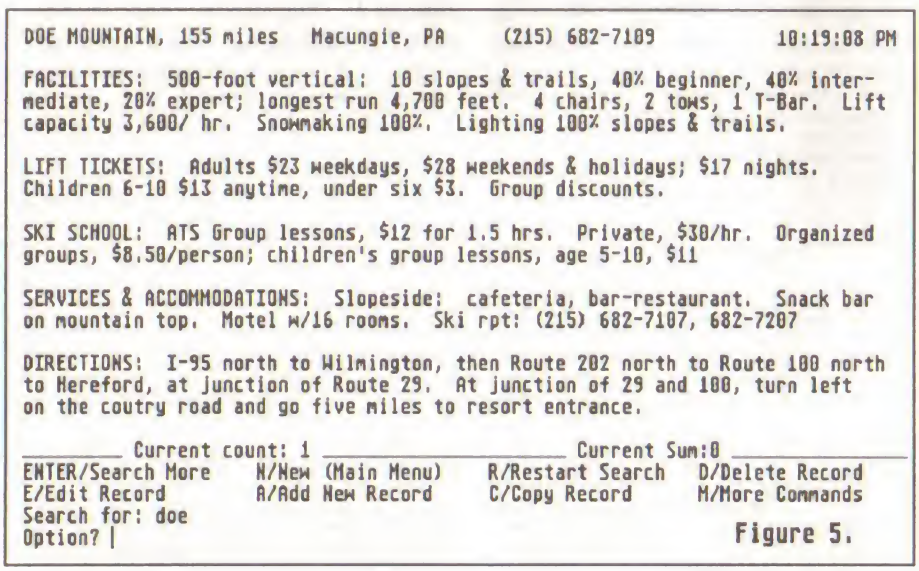


Figure 5.

Atari Classics on the Way

New 8-Bit Bi-monthly Magazine for Atari 8-Bit Users!

My name is Ben Poehland, and I'm pleased to announce that I shall be serving as Managing Editor of *Atari Classics* (AC), a new magazine exclusively devoted to the Atari 8-bit user.

The philosophical orientation of AC incorporated in its Mani fest is to be a magazine "of, by, and for the Atari 8-bit user." Unlike previous 8-bit periodicals, the content of AC will directly reflect the expressed desires of the user community, especially as recorded during the Mail-In Campaign conducted January 15-May 2, 1992. The magazine will be staffed by members of the user community, and its content will be drawn entirely from the user community.

Unicorn Publications, already well-known for its outstanding *Atari Interface Magazine*, has agreed to provide publishing services for *AC*. *AC* and *AIM*, however, will be independent publications, and the addition of *AC* to Unicorn's stable of products will not affect *AIM's* present subscribers.

This will be *your* magazine. AC will succeed, or fail, on the number of subscription orders it receives. Although seed money to print the Premier Issue has been provided, the magazine will need 500 paid subscriptions to succeed. A limited production run of 800 issues is scheduled for October or November 1992. Most of these will be distributed *free of charge* to the roughly 600 people who sent in commitment cards during the Mail Campaign. Of course, there were some folks who got missed in the Mail Campaign. So we ordered up extra copies that will also be distributed for free. First come, first serve! You can write to: Atari Classics, 179 Sproul Rd./Rt. 352, Frazer, PA 19355 USA. ATTN: B. Poehland, Managing Editor. I will add your name to the list for a free copy of the Premier Issue. (No guarantees, and be sure to include your postal mailing address!)

The basic subscription fee is $25/year in the USA, with higher fees for Canadian and other non-US subscriptions. Full details on subscriptions will appear in the Premier Issue. Beginning in 1993 the magazine will be distributed bi-monthly (6 issues/year).

A software disk bearing programs published in AC plus selected offerings from the Public Domain, will be available separately for $9/year in the USA. Full details on disk subscriptions will also appear in the Premier Issue.

And, look forward to a whole bunch of other stuff, contributed by some of the most talented writers and hackers in the Atari 8-bit world.

Making Fountains With *Outline Art*

by David Barkin

What gives? All my books on desktop publishing tell me that the out putting of smooth fountains is not possible with a laser printer, yet here I am turning out incredibly complex designs whose heart lies in perfect gray scale fountains. A gray scale fountain, by the way, is the smooth transition between black to white (or a percentage of Black to white) from within a defined shape. My books even give me examples showing that at 300 DPI fountains are heavily banded. One has to go up to 1200 or even better 2400 DPI to eliminate this banding. Is my printer that good? The answer is embedded in that rather strange, complex, incomplete, buggy wonder of the Atari ST, *Outline Art by ISD*. One hopes that the reader is more or less familiar with the many conventional features of *Outline*, because like last month's tutorial, this is taken for granted.

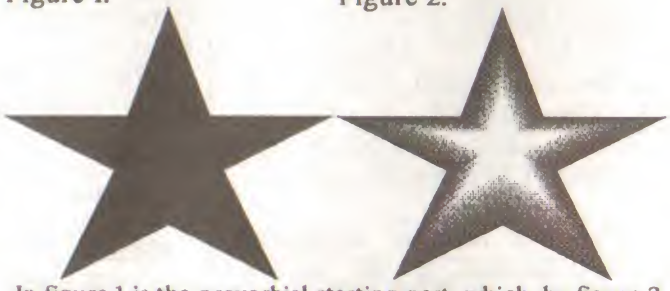
This wonderful program's greatest limitation is the exclusiveness of its output files, which left its use more or less limited to the owners of *Calamus*, but this is no longer the case. *Arabesque Professional*, among other programs, can now load and or output .CVG files, which is the native export format of *Outline*. Although the internal format of *Outline* is .OL it also easily imports its own .CVG files as well. This means that anything created in *Outline* can not only be imported into other Atari programs but can be used on other computer platforms. This is aside from the fact that *Outline* also comes with a separate conversion program to transform its .CVG files into EPS and PS standards. This tutorial is going to explain how to use those powerful features of *Outline*, which neither the manual nor ISDs own "Guide to Desktop Publishing" go into.

One day my Postscript programming friend, Gregg, came over to my house to show me some of his creations from within Postscript (in this case *Ultrascript*, the Atari Postscript clone). To my surprise and education, here were drawings created by a programming language itself. They were beautiful. Smooth, grayscales in odd shapes, spiral patterns, all sorts of odd and beautiful creations. These were presented to me as Gregg's subtle attempt to get me to take up the process of learning Postscript. He knew about my fascination with *Outline* and he showed me these conceptions because ***he knew they couldn't be done in Outline!***

Well this was a challenge that could not be ignored. Almost certainly I would lose; but nonetheless I would accept. I've accepted many such challenges and more often then not would eventually accept failure. The attempt to add a monitor to my calculator, the installation of a hard drive in my 67 Dart, the fiasco of upgrading my dogs memory past the 128K barrier. An act by the way, whose consequences, I among others feel to this day. I was used to failure, but, in this one case, I succeeded with a vengeance.

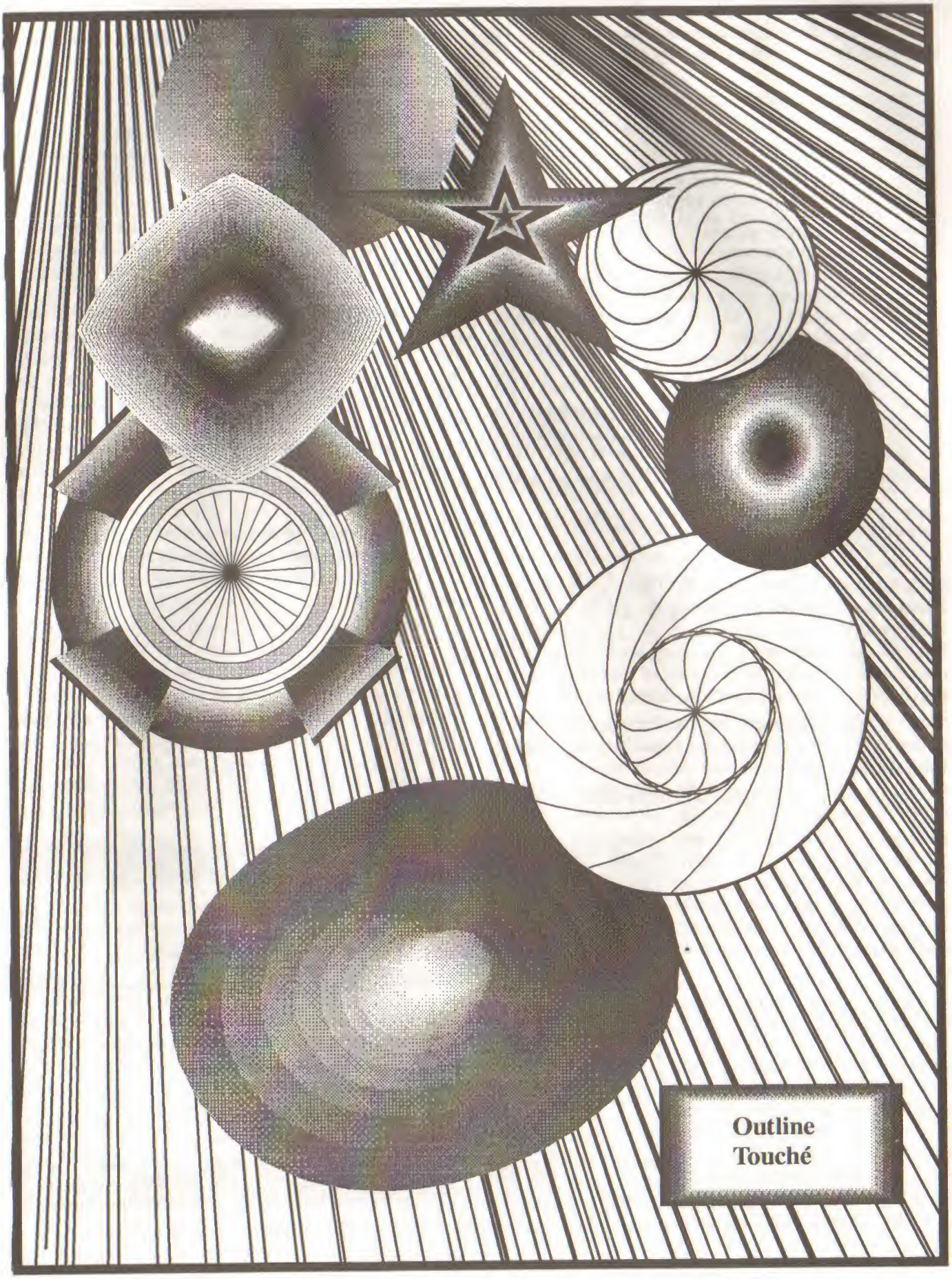
Up until then my idea of using *Outline* for the creation of grayscales was to use the grayscale icon and simply draw the usual rectangle, define the percentage of black to gray and, if necessary, use the control grid option to force the grayscale into a particular shape. The problems with this approach were twofold. One, it's difficult and cumbersome to create a control path to handle these grayscales and, two, they didn't print out that smooth anyway. I had been using this icon, following the manual's recommendation to get a metallic effect by placing the grayscales behind other objects which were invisible except for portions cut out to allow the gray to show. This is great for metallic lettering and other effects but it didn't come close to matching Gregg's designs.

Figure 1. Figure 2.



In figure 1 is the provorbial starting part, which, by figure 2, is transformed into my first fountain.

What to do? The calculator! Yes, I would use the calculator to copy the grayscales *after* putting them onto a control grid. After creating a very rough looking circle out of my grayscale, I told the calculator, to reduce the selected points (in this case "all points") by 10 percent. Then, going to the "clipboard special options menu," I set the "change grayscale option" to -5 percent (to set a minus value you must backspace to the end and then type in the minus sign followed by the value). The result looks like a pile of melting circles of ice-cream or soggy doughnuts. Interesting, but no cigar. But I was on the right track.


Outline
Touché

In figures 1 and 2 we have the first success. I simply created a black square, no outline, and setting the calculator to reduce the object by percentage, 97 percent, horizontally and vertically. Then, using the clipboard extra functions and setting the grayscale change to -3 percent, I hit the copy icon and, presto, figure 2. But this, as it turns out, is the tip of the iceberg. Before continuing lets take the creation of figure 2 step by step because all the other effects depend on this.

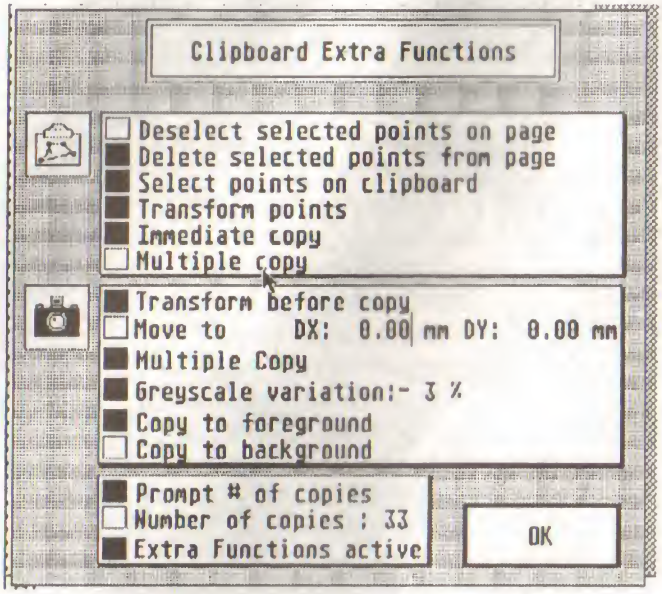


Figure 3. The clipboard extra functions dialogue box with the multiple copy options.

1) Create a square using the "create object path" option and in the dialogue box set the gray value to 100 percent and no line.

2) Set the clipboard special effects dialogue box as is shown in figure 3. The important part of this dialogue box are the settings next to the camera icon, the other options we can ignore except you should also set "Prompt # of copies" and "Extra functions active" to on.

3) Next, go to the calculator (figure 4.). In this case, don't use the option of "All Points" since we are only working with one object. The default setting is selected points. Click on the "Enlarge %," then go up to the dialogue and type in 97 percent for both vertical and horizontal. At this point select "Object Middl." Hit *Cancel*, not Calculate. This is because the clipboard extra functions is linked internally to the calculator and follows the instructions of the calculator according to how you set it up. If you hit Calculate, the calculator will act at once on the selected points.

4) Finally, go to the copy icon and, at the prompt, type in 33 for the number of copies. After a brief calculation, presto! As a last action, I changed the last object to 0 percent gray value.

Now the fun part begins, because the possibilities are endless. What if instead of typing in 33 for multiple copies, you hit 15 and then in the calculator change from object middle to object up and to the right, then hit 18 for multiple copy? What if you change the horizontal to 95 while leaving vertical alone? What if you change the gray scale value? What about after making your first object, you go back and change grayscale to +3? How about changing a piece of text to a vector object and doing this process on it? If an irregular shape, how about taking a break from the copy aspect and rotate the object a few degrees and resume copying? In the large illustration on page 37, you will find my answer to my friend Greggs postscript art. None of these objects took more than five minutes to create once I got the hang of it. I even included by pile of soggy shapes.

Before I leave you this month, I just would like to give a few pointers and warnings. This version of *Outline* is limited to 100K. These multiple copy objects eat memory like you wouldn't believe. This is partially dependant on the number of points in each object. Furthermore, once you get up to 50 layers, believe me, you don't want to go back and start hunting to change just one layer. It's much easier to reload one of your previously saved versions and start over.

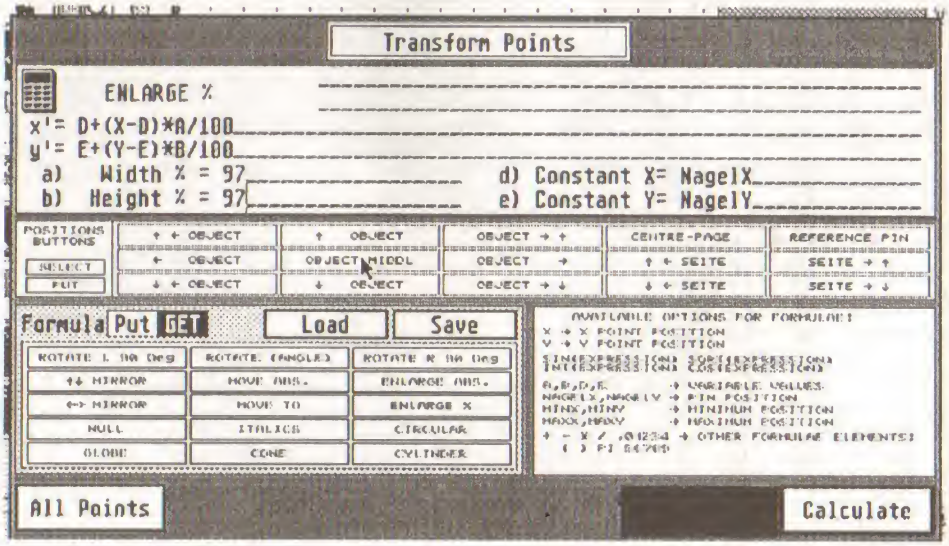


Figure 4. The calculator and some of the settings used to create figure 2.

Also *Outline* starts to slow down once you reach about 50K. The solution is as follows. When an .OL file is saved, when recalled or merged, it returns to the exact same spot it was saved from. Also, no matter how complex when recalled, it comes back with all points selected.

Plan your design ahead. Save often, giving your objects clear names so that you don't get confused. If files really get out of hand (see page 37), then save them separately and reassemble them in your publishing program.

One little note here is that *Calamus 1.09N* has a minor bug where .CVG files appear to be transparent but they are actually opaque and print out opaque. Don't let this confuse you. SL fixes this little bug.

Two last observations. My printer is the HP III and I'm quite pleased with the output, but my old printer was the HP Desk-Jet and the results *were much better!* Probably because the real ink of the Desk-Jet smears just enough to make each fountain perfect. Besides that, with the Desk Jet the images seemed to glow.

For best results set the *Calamus* printer dialogue to "Raster x 1." The other point is that *Calamus SL's* vector module fixes two of *Outlines* main weaknesses, the inability to set each line to a different weight and the inability to group frames together.

Next month, we will explore shortening the learning curve in *Calamus* and *Calamus SL*. Personally, I'm tired of hearing about how confusing the icon interface of *Calamus* is. The primary fault for this misconception lies with ISD themselves for not explaining that the icons are simply a learning aid. Both beginners and perhaps some long-term users will be pleasantly surprised.

In case anyone is wondering whether the author of this article is suffering from delusions of grandeur - The answer is yes! Outline Touche was created both to impress my friend Gregg and to win the Outline Art Contest. It has since then been pointed out to me on occasions too numerous to mention that the above drawing is just magnificent, but is it Art? Since I didn't win the contest, not even an honorary mention I am forced to conclude that the judges were heavily bribed by the unscrupulous competition. They will be hearing from my attorney.

The Fest *before* The Fest

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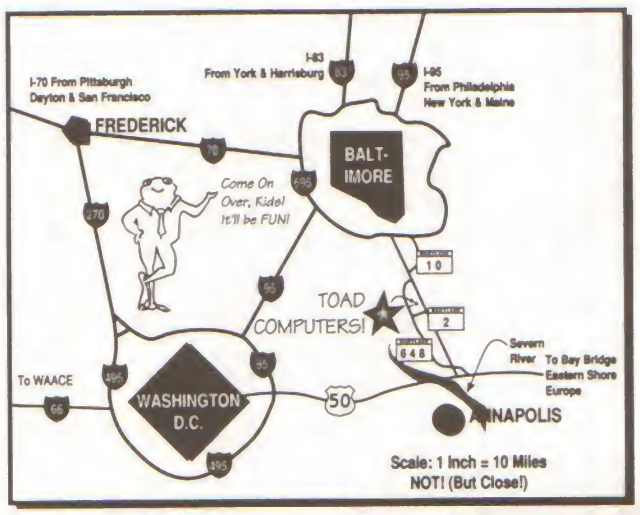

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From Washington DC, MD Suburbs, Northern VA (40 - 60 minutes): Get to east side of Capital Beltway. Take US 50 east to Annapolis. Follow directions from Annapolis.

If you need further directions, feel free to call and act confused.

Meet Dave Small, Tim Reyes, and Tom Harker! Way Cool!

The Fest *before* The Fest

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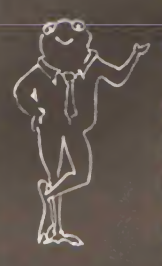

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8 Bit Tidbits

by Richard L. Reaser Jr.

Connecting Your Classic

School's in Session

I'm typing this in Los Angeles, the recent capital for epicenters and burned out shopping centers. By the time you read this column, however, I'll be in Alabama at a ten-month Air Force intermediate service school. This summer, I moved my family to the Los Angeles area in anticipation of a follow-on assignment here. (My wife is pregnant with twins which are due shortly. Two moves in a ten month period with tiny babies or babies to be would be an even greater burden.) Most of next month's column will be prepared in Colorado Springs. Nothing like a roving reporter.

How Can I Do This?

With my ever-so-portable 130XE. The key is that I don't need to carry around a special monitor. I just plug into the nearest television set and I'm ready to rock 'n' roll. The computer, MIO, hard drive and modem also fit nicely amongst my clothes in the suitcase. Let's see an MS-DOS person try that! I also stay connected through my modem on the various telecommunications services to get the latest poop and to stay on top of things.

Anyway, my new address is at the end of the column and any mail sent to the old addresses (Colorado Springs or Los Angeles) will catch up with me. You can always find me on GEnie or CompuServe.

Elsewhere in This Issue

This month, a new face, Paul Summit, joins us with an informative article on video and film production planning using your 8-bit teamed with *SynCalc*. Paul knows what he is talking about. Paul bought his first Atari in 1985. He is currently the instructor of broadcasting at Lincoln University in Jefferson City, Missouri. Paul began working in broadcast television in 1974 and has worked in both commercial and non-commercial television. He holds a masters degree in mass communications from Arkansas State and has presented numerous professional papers on the media business. Paul is a CompuServe regular.

Paul's *Syncalc* article has motivated me to complete my latest *Syncalc* project, which calculates capital gains on multiple sales using first in/first out basis.

Finally, Charles Cole (who must own stock in Computer Software Services) gives us an excellent overview of the *Ultra Speed Plus Operating System.*

Coming Attractions

Here is a peek at what's ahead in terms of 8-bit coverage in *CN.* I still have a few articles left over from the previous editor. A number of projects are still in work or under negotiation. I need writers to volunteer for a couple of proposed articles or come up with their own ideas.

Backlog Yet to Be Published:

Quintopus	Charles Cole
3 1/2" Drive Upgrade	Charles Cole
Disk Base	Charles Cole
Data Perfect	Chris McCoy

In Work or Under Negotiation:

TurboBasic Kit	Chuck McBride
SpartaDOS Menu Help	John Sandgren
Mission Shark	Roger Meston
FRED	Roger Meston
Disk Library Programs	Roger Meston
Digi-Studio	Rick Reaser
Capital Gains Template	Rick Reaser
8-bit Model Railroading	Decker McAllister
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GEnie/CompuServe Comparison
Usenet
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If you are interested in writing for *Current Notes,* please contact me at the mail or E-mail address at the end of this column. We're always looking for a few good writers and reviewers.

SpartaDOS X Cartridge Dialog

Jeff McWilliams sent me note on CompuServe from the Internet in response to Charles Cole's SpartaDOS X cartridge article in the June 92 issue of *CN,*

"Solving the SpartaDOS X Incompatibility Hassle--Adding On/Off Toggle switches to the SpartaDOS X Cartridge." I relayed Jeff's thoughts to Charles on GEnie and after a few iterations, here is a digest of the dialog which spanned three information services.

Jeff proposed an alternative to the modification. While in the SpartaDOS X (SDX) environment, you can type in the COLD /CN command with the *AtariWriter Plus* disk in the boot drive. This will allow *AtariWriter Plus* to boot without SDX getting in the way. When you want to get back to SDX, do a cold start with a disk in the boot drive that has X32D.DOS, CONFIG.SYS, XON.COM and your related support files for SDX on it. SpartaDOS 3.2D will come up because the SDX cartridge is still turned off. Run XON.COM from the command line and the system will reboot with the SDX cartridge turned on.

Charles responds that Jeff's route will work just fine, but points out that his own cure eliminates all of the disk swapping and additional command typing. His aim was to come up with a cure-all for all programs that are incompatible with the SDX, not just *AtariWriter Plus*. "Why do all that disk swapping when you can just flip two toggle switches?"

FidoNet

I have received a number of requests for the nearest FidoNet node. As of this writing, I've answered all the requests I've received so far, be it by regular mail, GEnie, CompuServe or the Internet. Be sure to include your area code with your request. I don't know how many ST owners read this column, but I'm willing to find the Nodes in their area codes as well.

Some of you are probably wondering how I get the lists of Bulletin Board System (BBSs) or Nodes that support FidoNet. James Young, who runs the 221B Baker Street BBS in Panama City, FL has been helping me out with that. I came across James while trying to track down the FidoNet Atari 8-bit Echo Moderator. James doesn't own an Atari, but carries the echo on his BBS. Anyway, Jim has an on-line search program that can search through the 3-4 Megs (!) of FidoNet Node List that I use to put together the list I send to requestors. Thanks to James for all his support. James also helped me locate my local FidoNet nodes while I'm here in Southern California. Now I've found a local BBS with essentially the same capability. Just to impress you with numbers, There are 46 BBSs here in the South Bay, within my toll free calling radius, that support FidoNet. FidoNet is BIG!

Larry Black, also in Panama City, FL is the Atari 8-bit Echo Moderator. Larry runs the BEJUE BBS (FidoNet Node 1:3208/121) on an IBM PC (in 40 columns, of course). Larry's only phone is hooked to his BBS, so I learned quickly that the only way to get to him was through computer. He still loves Atari and reading the 8-bit echo. When the FidoNet Echo gurus were considering shutting down the echo last year, Larry stepped in and volunteered to be the moderator. As moderator, Larry makes sure that things stay "clean" and such. He also provides the echo rules to the Echo List Moderator as well as the current paths and supporting nodes.

Larry informs me that there are only 13 nodes or BBSs that carry the 8-bit echo. The echo is officially called the "Atari Echo." There is also an "Atari ST Echo," which broke off when the ST was introduced. Larry is compiling a list of the BBSs that carry the 8-bit echo followed by the current node path so you can help your local FidoNet SysOp figure a way to connect to the echo. This will be in the October *CN*.

To get the Atari 8-bit echo on your local FidoNet Node, you need to convince the SysOp to carry it. The echo should be available at all FidoNet Hubs, since they are normally part of the FidoNet backbone, which carries all FidoNet message traffic. It may also be possible to get the SysOp to hook into the current path. My local Atari user group BBS in Colorado Springs had no problem getting the echo into our BBS, which was run on an ST.

Internet/Usenet

Much of the following information was derived from the "Frequently Asked Questions" file on Usenet maintained by Michael Current.

Usenet is another one of those computer networks where subscribers can send messages and files to each other. Usenet supports many "newsgroups" for subscribers with common interests and problems. A newsgroup is similar to a message base on your local BBS. We Atari Classic owners have our own Usenet newsgroup called comp.sys.atari.8bit. The Usenet comp.sys.atari.8bit newsgroup is dedicated to the free exchange of information pertaining to the 8-bit Atari computers: the 400, 800, 1200XL, 600XL, 800XL, 65XE, 130XE, and the XE Game System. Users of Atari TT, STe, ST, Portfolio, Lynx, 7800, 2600, or 5200 have their own newsgroups on Usenet.

You have been hearing me refer in recent issues to the Info-Atari8 Digest. The Info-Atari8 Digest consists of postings to comp.sys.atari.8bit, collected and e-mailed to subscribers on the Internet who do not have access to Usenet. These digests are normally put on GEnie and CompuServe as well.

The Internet also has its own files library called the atari.archive which Internet subscribers can access and download from using a File Transfer Protocol or FTP. It is physically located at the University of Michigan and Internet address is atari.archive.umich.edu. [See also "Atari Archives at the University of Michigan," by Jeff Weiner, *Current Notes*, March 1992. -- JW]

As I said in an earlier column, it is possible to send e-mail to these Internet people through Com-

puServe by prefacing the address with ">INTERNET:". This way you can "answer" some of the messages that are part of the Info-Atari8 Digest.

We hope to have a feature article here soon on the Internet to give you more details. Now we need to find someone to write about Usenet.

Cleveland Free-Net Atari SIG

On July 20, the Central Atari Information Network (CAIN) introduced an expanded Atari 8-bit computer support area in their new and improved Cleveland Free-Net Atari SIG. This Atari SIG is actually a computer based, on-line information system. It also supports all Atari platforms, so this may be of interest to ST, Portfolio and Lynx owners.

With respect to Atari 8-bits, the SIG provides a number of unique features, including a Frequently-Asked Questions (FAQ) list, 8-Bit news and programming forum. The programming forum includes a resource center where you will find code samples, helpful hints, and the best PD development tools info; product summaries; product reviews; tips and tricks; Info-Atari8 Digest archive; and Z*Magazine archive. Message Areas and a large file area are also a part of the SIG. The file area is connected to the Internet's Atari Archive, located at the University of Michigan. The Atari SIG also periodically takes advantage of the Free-Net's conferencing ability to hold real-time, on-line Atari conferences. In addition, the Cleveland Free-Net provides Internet mail access, plus full access to Usenet, including the newsgroup comp.sys.atari.8bit.

The Cleveland Free-Net is the primary system in the ever-expanding NPTN, the National Public Telecomputing Network. To access the Cleveland Free-Net call:

(216) 368-3888
300/1200/2400 bps

Or from the Internet,

telnet freenet-in-b.cwru.edu
(129.22.8.75)

When connected, you may either browse the system, or you may apply for your Cleveland Free-Net account. Application is easy, and of course it's free! Finally, type "go atari"!!!

For more information on the Cleveland Free-Net Atari SIG, contact:

The Atari SIG
P.O. Box 364
Mentor, OH 44061

Internet users can use the Internet address:

xx004-cleveland.freenet.edu

What's New on GEnie?

There has been a lot of activity in the GEnie libraries since I last wrote. One of the SysOps, Chuck Steinman (DATAQUE1), has started to post ATASCII versions of "Atari Explorer Online" for those interested. There is nothing really of 8-bit interest in those files. There is a lot of general Atari Corp stuff, but I just read Frank Sommer's "ST Update" and the other coverage elsewhere here in *CN* for that. If you are a Trekkie, however, there is an excellent column by Walter K. Wilbury entitled, "Star-Trek: Deep Space Nine." Apparently, this is the follow-on to "Star-Trek: The Next Generation" and will premier in January 1993. Lot's of good poop in here, if you're into that stuff. See file #5940, AEO9209.ARC.

J.BILLIG has posted a number of common games that some of you may or may not have seen on the Atari. My kids have been enjoying the monster concentration game for the past few days. ANIMATSURI continues to provide numerous pictures in numerous formats for us to view. There are a couple of files related to the Antic Sampling Processor now on line. Ray Wilmott has cross-posted his updated Atari 8-bit sources list to GEnie. A sample edition of the Ol' Hackers Atari User Group newsletter is also available. If you haven't seen this disk-based publication, it is quite clever and well-done.

Another new thing I've noticed on GEnie is that the command "BYE" now works while you are in the Mail Command mode and when you are in the Bulletin Board areas. Something that isn't new is the last Roundtable News from the SysOps. The last item is dated October 19, 1991!!

What's New on CompuServe?

The bulk of new files on Compuserve (CIS) are primary cross-posts of the Info-Atari8 Digests from the Internet. These digests haven't been posted to GEnie for quite sometime. BTW, a useful project for someone would be to digest the Digests. If you ever fall behind, it gets to be a lot of reading. There is a file on how to run your 8-bit from your car battery (Library 17,Title: X12VDC.ARC). The best thing is an ANSI graphics terminal program for your Atari 8-bit, called *AnsiTerm*. It's in Library 2, and named ANSIT1.ARC.

AnsiTerm was written by Robert Sinclair. This new version now supports SpartaDOS 3.2 and now has the X-Modem protocol. In the docs, Robert bemoans the fact that only five people actually registered the previous version of the program for $15. Come on, people! I did a brief test of the program and it really works! ANSI Graphics are provided by many BBSs. If you ever wondered what you are missing, try this program. It displays in color 80 columns, which may be difficult for some to read. All in all, it is pretty neat. Now, who wants to write a formal review of this program? Please contact me.

Activity in the .CIS message bases is still brisk with lots of SysOp, Bob Puff and Bob Wolley participation.

Computer Networking with Your Atari Classic

We've been talking a lot about computer networks lately in this column and we've only scratched the surface. Your Atari 8-bit doesn't just talk to other 8-bits. It can talk to IBM PC's as well as Crays--and they can't tell the difference. It's always fun to hear the reaction of the guy on the other end with the Sun workstation that you're using an Atari with 64K. Computer networks as well as on-line computer services and bulletin board systems open entirely new worlds to the 8-bitter. So get a modem and get connected.

Ben Poehland provides us with the following leads for some books that go into a lot of depth with respect to computer networks. Even though they are fairly "new," some of the information is a little dated. (1 hour = 186,000 miles in the electronics world, remember.) The technical library at your local College or University might have copies that you could peruse, prior to purchase. Your public library might be able to get them through interlibrary loan. (That's the angle I'm working.)

The Matrix: Computer Networks & Conferencing Systems Worldwide by John S. Quarterman. 719 pages with index (paperback) published 1990. ISBN: 1-55558-033-5.

The User's Directory of Computer Networks by Tracey L. LaQuey (ed.) 630 pages (paperback) published 1990. ISBN: 1-55558-047-5.

Ordering Information: Digital Press, Digital Equipment Corporation, P.O. Box CS 2008, Nashua, New Hampshire 03061-2008. Order phone: 1-800-344-4825, Monday-Friday 7:30 am - 8:00 pm ET. FAX orders: 1-800-234-2298, Monday-Friday 8:30 am - 6:00 pm ET. BBS online catalog/orders: 1-800-234-1998, 1200 or 9600, 7:00 am-midnight ET, 7 days a week. Catalog #'s & prices: The Matrix, #EY-C176E-DP, $49.95. User's Directory, #EY-C200E-DP, $35.95. Prices & catalog #'s valid as of June 1, 1992. Prices include shipping. Major credit cards are accepted. Inquire about applicable discounts at time of order. (The Alchemist received a 5% discount upon grumbling at the high prices). You will have to pay applicable sales taxes for your state, which is automatically added to your account charge.

Atari Classics (AC) 8-Bit Magazine Update

Postcards from the AC mail-in campaign are still drifting in. Ben Poehland, "The Alchemist," has spent the past several weeks arranging them in alphabetical order and reading every single one. Ben reports that the vast majority of comments on the cards were overwhelmingly positive.

This past summer there has been discussion on the Internet and in *Atari Interface Magazine* (AIM) regarding the AC effort and its relationship to the rest of the Atari community, especially ST owners. To set the record straight, the Alchemist provided his position on CompuServe.

"The two communities should peacefully co-exist. I am adamant that AC will *not* be a platform for ST-bashing! Although the two communities have diverged more sharply in recent years, they still share a common historical ancestry and, upon occasion, are still able to contribute to each other in minor ways on technical issues. However, I do not feel that the 8-bit community should be sacrificed just to keep peace in the family."

As for the structure of AC, it is shaping up as follows. The AC Resource Editor will investigate new sources and publish a list of vendors/developers periodically in AC. There will be a "Swap 'N' Shop" column where people can place private advertisements. The ads will be free to paid subscribers (subject to certain limitations which are still being worked out).

The anticipated content of AC (though not carved in stone, and dependent on what authors submit) according to experience level is projected as follows:

10%	Beginner (plus a dedicated column)
50%	Intermediate
40%	Advanced

Subject matter of coverage is currently projected this way:

40%	Hardware
45%	Software
15%	General Interest

According to the interest cards received, there is also substantial interest in Public Domain (PD) software reviews, the PD market generally, utilities, applications, educational programs, games, and programming tutorials.

Circulation of AC's Premier Issue, originally scheduled for Sept./Oct. has now slipped to Nov./Dec. I personally hope to learn how we can do things through the Alchemist's experiences and incorporate things appropriately here at *CN*. Additional information can be found on CIS, Library 7 in AC1.TXT. (There may be a AC2.TXT by the time you read this.)

Best Electronics .

Brad Koda of Best informs me that his outstanding catalog is still available. He also has an addenda with over 150 additional Atari Classic part numbers and products. Brad also noted that he had an outstanding keyboard replacement for the 130XE. Most of the sales have been overseas on this item. If someone has one of these key board replacements, we'd love to see a review of it here in *CN*. To get a copy of the Best catalog send $3.67 to:

Best Electronics
2021 The Alameda, Suite 290
San Jose, CA 95126-1127
(408) 243-6950

TextPRO+ Version 5 Update

There have been some additional delays in the *TextPRO+* Version 5 release. Ronnie Riche tells me that programming for the Beta version is essentially complete. He has a few more tests to run. The next hurdle is to copy and mail out the disks to the 80 or so registered owners.

Model Railroading with Atari Classics

While here in Los Angeles, I picked up a copy of *MicroTymes* and found an interesting notice in the user group section. It was for a group that uses Atari 8-bits in model railroading applications. Needless to say, I called and had a fascinating conversation with the group's coordinator.

The goal of the group is to use computers in the design of model railroads, control of their operations and to simulate model railroad systems. So far, they have developed hardware and software to control engine throttles through the joystick ports. They have simulation programs that help in the design and operation of the model railroads. They also have developed programs that generate switch lists and timetables for layouts.

Why are they using 8-bits? They are cheap, easy to program, easy to understand, small, flexible, powerful, etc. etc. (We all know that already.) Many of the programs are actually being ported from IBM systems onto the 8-bits. Their quarterly newsletter is done on a 800XL with XDM121 printer. (The coordinator couldn't say enough nice things about that printer. It's a tank.)

I hope to get an article from the group in a future *CN* issue. They aren't fully integrated into the "normal" 8-bit network and can use a lot of help (especially in the SIO and PBI area). They also have a lot to offer as well, since their hardware and software projects are fairly documented. For further information, contact:

ATESIG
Decker G. McAllister, Jr., Coordinator
145 Surf Place
Seal Beach, CA 90740-5905
(310) 430-5433

That's it for this month. Write, call or E-mail your requests, questions or complaints to:

Rick Reaser
2427 D Meadow Ridge Lane
Montgomery, AL 36117-4616

GEnie: R.REASERJR1
CompuServe: 72130,2073

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Contact us for details about our special offer to trade up from other word processors.

PRODBID: The Video and Film Production Planner

A SynCalc Template for Video Producers

by Paul M. Summitt

So you've been asked to videotape your best friend's cousin's brother-in-law's daughter's wedding. Congratulations. Now all you have to do is decide what you're going to charge them.

Charge?

Sure. You are going to charge them for your time and effort, aren't you? You've spent considerable time and money gathering the expertise and equipment to be able to put a video production together. So why shouldn't you get paid for doing it, right?

But, how much do you charge for doing it? If it was your best friend's wedding you'd do it for free, wouldn't you? You'd even consider doing it for free for your best friend's cousin. But this is your best friend's cousin's brother-in-law's daughter's wedding. So pull out your trusty Atari 8-bit and load up your copy of *SynCalc*. Using the template PRODBID, you too can figure a budget for a video production. So let's get to it.

Getting Started

I've used *SynCalc* software here for this template (or worksheet in SynCalc-ese) because *SynCalc* is still the most widely used Atari 8-bit spreadsheet that will perform the necessary calculations. But *SynCalc* isn't the only spreadsheet that will do this. The original version of this template was written with *SynCalc* in 1985 while I was working for the Arkansas Educational Television Network. I converted it for use with another Atari 8-bit spreadsheet program while at Arkansas State University in 1986. It was upgraded for *SynCalc* while at Alderson-Broaddus College in 1988 as well as being converted for use with another computer operating system's spreadsheet program. While at Southeast Missouri State University during the 1989-1990 academic term, I converted the template for use with two different spreadsheet programs for use with another computer's operating system.

The reason for explaning the history of this template is so that you'll understand that even if you don't have access to *SynCalc*, you can still use the same concept with the spreadsheet software you do have. Simply take the information provided in accompanying PRODBID template description in Table 1 (pages 50-52) and convert the formulas for use with your particular spreadsheet program.

If you want to use *SynCalc* and don't have a copy, you may have a problem. *SynCalc* was sold by Broderbund and is no longer available from them. There are, perhaps, some back copies still available. (Editor's Note: B&C ComputerVisions, 2730 Scott Blvd, Santa Clara, CA 95050, (408) 986-9960; still has copies of *SynCalc* available for $35.95-RR) Even if you've never used SynCalc before, you should be able to work your way through the relatively well-written manual in a short time and learn enough to use this template. If you're using SynCalc or some other spreadsheet software, please keep the manuals close by while using PRODBID.

Why Prepare a Video Budget?

The number of professionals whom I have worked with and number of students that I teach who attempt to produce a video or film production without first considering the costs involved never ceases to amaze me. Chances are that even if they complete their projects, the production is not as good as it might have been had they taken the time to perform the necessary pre-production planning. Many times the production is left incomplete due to lack of time, proper equipment, or funds.

As stated in the PRODBID template, the purpose of PRODBID is to help in the pre-planning stages of a video or film production so as to anticipate production needs before they occur thereby allowing allocation of sufficient funds for the project. There are many sources of information about video and film budgeting that I would suggest you look at for more information. Two of the classic texts are Michael Wiese's Film and Video Budgets, published by Michael Wiese Film Productions, and S.A. Costa's How to Prepare a Budget for Film and Video Tape, published by Tab Books. Both are slightly dated, although Wiese does update his editions from time to time. Both provide the basic information about budgeting.

Spreadsheet Programs and Production Budgeting

Spreadsheet programs are ideal for preparing film and video production budgets. You simply type in the personal data such as length of the production, whether a script, narrator, and special effects are required, and other pertinent facts, and the customized formulas tell the spreadsheet how to compute the budget from your data. If you decide that you need to change some of the information, just go to the proper cell, type in the new information and press [START].

The entire budget model will begin to recalculate.

I designed this particular PRODBID template for use on a professional production using half inch VHS equipment. The individual charges for services are based on information from a variety of sources including The 1989 Writer's Market and various personnel charges, which are dependant on the market that you are working in. You can change these charges to reflect those charges applicable to your particular market size and more up-to-date rates.

As consumable items such as video and audio tape change in price on a regular basis, you will also need to adjust those costs to reflect the actual price per tape that you are paying. The prices for special effects are based on 1989 prices at a post-production house in Memphis that I have worked with since 1985. You'll need to adjust those costs to reflect the charges of post-production houses in your market.

I could go into a long discussion of D-2 format and time-code editing at this point but this is not an article about production techniques. It is an article about using the Atari 8-bit for production budgeting using *SynCalc*. So let's talk about making inputs to the PRODBID template.

Using the PRODBID template

You can download the template from CompuServe, GEnie, or another BBS. (Editor's Note: The template is available as PRDBID.SC on CompuServe in Library 5, Productivity S'Ware. As you know, CompuServe only allows six characters before the extender. On GEnie, it is file number 5942, PRODBID.SC, in the Productivity Library-RR) You'll need to boot *SynCalc* before loading PRODBID.SC (or PRDBID.SC if you downloaded from CompuServe) as a worksheet.

For the purposes of this article, I'll have to assume that you're familiar with *SynCalc*. For instance, you should know how to move around the spreadsheet as well as how, in pressing [OPTION], to begin a command sequence.

Follow the directions in PRODBID.TXT and type in the information and formulas. If you're using a different spreadsheet program than *SynCalc* make sure you make the necessary conversions in the formulas. You'll also want to entry protect the template/worksheet from cell A91 through cell H191.

Special Notes

This updated version of PRODBID was written on an Atari 800XL upgraded with the ICD Rambo XL and the Atari 1050 disk drive upgraded with the ICD US Doubler. The result is that the spreadsheet may be too large for a 48k or 64k machine. There are a variety of tricks that you may use in typing the model in that will make more space available. One of them is eliminating the information in A1 through H51. I don't really recommend this for a variety of reasons (one of them being my name is in this area). The information here provides any user with background on the model that could be useful should problems arise.

Go Forth and Videotape

As mentioned earlier, pre-planning of a videotape production can save time and money. Plan out your production well using your Atari 8-bit computer and you won't have the headaches you would otherwise. After you're finished with the planning stages you can tell your clients exactly how much it will cost to produce their videotape productions.

(Editor's Note: I sucessfully ran the template on a 130XE with no memory problems. It also worked on my ancient, vanilla, 48K 800. I didn't need to consult the *SynCalc* manual at all once the template was loaded, since *Syncalc* has such an intuitive and self-explanatory user interface. I encourage you to look at the internals of Paul's template. He uses some of the more advanced spreadsheet techniques available with *SynCalc*, such as the infamous "·IF THEN ELSE" function, which is not included with *VisiCalc*. "·SUM," which *VisiCalc* does support, is also present. —RR).

■■■■■■■

Table 1. PRODBID Template Description

```
A1:M & J PRODUCTIONS CONFIDENTIAL PRODUCTION BID
PROPOSAL
A6:[Flush Right]NAME:
B6:PRODBID (VIDEO & FILM BUDGET SPREADSHEET)
A8:[Flush Right]DATE:
B8:WRITTEN JUNE 1985
A10:[Flush Right]AUTHOR:
B10:PAUL M. SUMMITT
A12:[Flush Right]DEPT:
B12:ACCOUNTING
A14:DIVISION:
B14:PRE-PRODUCTION
A19:DATE MODIFIED
C19:WHO MODIFIED AND WHAT
A20:------------
C20:--------------------
A21:24 JUNE 1990
C21:Summitt - Instructions & Data Input Area
A25:The purpose of this model is to help in the
pre-planning stages
A26:of a video or film production so as to an-
ticipate production
A27:needs before they occur thereby allowing al-
location of sufficient
A28:funds for the project.
A30:Directions for use:
A31:1.  Load Spreadsheet Program (this version
was written for SYNCALC)
A32:2.  Load PRODBID spreadsheet.
A33:3.  Enter information requested in Section A
of spreadsheet.
A34:4.  Save spreadsheet back to disk under new
name.
A35:5.  Print out Budget Proposal to your
printer.
A37:Reference:
B37:Wiese, Michael.  FILM & VIDEO BUDGETS.
Westport, Conn.:
B38:Michael Wiese Film Productions, 1984.
A39:Reference:
B39:Costa, S. A.  HOW TO PREPARE A BUDGET FOR
B40:FILM & VIDEO TAPE.  Blue Ridge Summit, PA:
Tab Books,
B41:1973.
A42:Reference:
B42:Nevison, John M.  "The Ins of Spreadsheet
Power."
B43:PC-COMPUTING.  June 1990.  pp. 92-105.
A45:Contents:
B46:Introduction:  Title, description, contents.
B47:Initial Data input.
B48:Bid Proposal Print out
A50:SECTION A:  Initial Data Input
A52:Directions:  Answer the following questions.
A54:NAME OF PERSON REQUESTING PRODUCTION:
E54:[Entry Area for A54.]
A55:    NAME OF COMPANY REQUESTING PROD.:
E55:[Entry Area for A55.]
A56:                  ADDRESS OF COMPANY:
E56:[Entry Area for A56.]
A57:          CITY, STATE, AND ZIP CODE:
E57:[Entry Area for A57.]
A58:                                PHONE:
E58:[Entry Area for A58.]
A59:                            BID DATE:
E59:[Entry Area for A59.]
A60:                 TITLE OF PRODUCTION:
E60:[Entry Area for A60.]
A61:      ESTIMATED LENGTH OF PRODUCTION:
E61:[FORMAT PRECISION 0]
F61:(MINUTES)
A62:                          PROJECT TYPE:
E62:[Entry Area for A62.]
A63:     SCRIPT REQUIRED?(YES=1 OR NO=2):
E63:[FORMAT PRECISION 0]
A64:SPECIAL EFFECTS REQUIRED?(YES OR NO):
E64:[FORMAT PRECISION 0]
A65:         TRAVEL REQUIRED?(YES OR NO):
E65:[FORMAT PRECISION 0]
A66:                            Distance:
E66:[FORMAT PRECISION 0]
F66:(miles)
A67:      NARRATION REQUIRED?(YES OR NO):
E67:[FORMAT PRECISION 0]
A68:          MUSIC REQUIRED?(YES OR NO):
E68:[FORMAT PRECISION 0]
A69:                  Number of Musicians
E69:[FORMAT PRECISION 0]
A70:      NUMBER OF COPIES OF PRODUCTION:
E70:[FORMAT PRECISION 0]
A71:          NUMBER OF CAMERAS REQUIRED:
E71:[FORMAT PRECISION 0]
A73:SECTION B: PRINT OUT
A75Directions:
B75:Copy information requested to cells E76 -
E79, B84 and F84.
B76:Enter information requested to cells A82
through A85.
B77:Copy information requested to cells B84,
B85, & F85.
B78:Ready Printer and print A80 to H220.
A80:M & J PRODUCTIONS   CONFIDENTIAL PRODUCTION
BID PROPOSAL
A82:(Your Company Name)
D82:Bid for:
E82:/copy E54 to this location
A83:(Your Address)
E83:/copy E55 to this location
A84:(Your City, State, Zip)
E84:/copy E56 to this location
A85:(Your Phone)
E85:/copy E57 to this location
```

```
A88:Bid Date:
B88:/copy C16
D88:Projected Length:
E88:[FORMAT PRECISION 0]
F88:Minutes
A89:   Title:
B89:/copy E60
D89:    Project Type:
F89:/copy E62
A91:Pre-Production:
C91:[PRECISION 2] @IF E63=1 THEN 1+(F88*8)/60
ELSE (F88*8)/60
D91:DAYS
E91:Shooting Radio:
G91:[PRECISION 0]8
A92:Production:
C92:[PRECISION 2] @IF E65=1 THEN
2+(((F88*G91)/60)/8) ELSE @IF E65=2 THEN
((F88*G91)/60)/8 ELSE 0
D91:DAYS
A93:Post-Production:
C93:[PRECISION 2] @IF E64=1 THEN
2+((F88*G91)60)/8 ELSE @IF E64=2 THEN
((F88*G91)/60)/8 ELSE 0
D93:DAYS
E93:Total Project Days
G93:@SUM(C91:C93)
A95:-----------------------------------------
------------------
D96:QUANTITY
F96:COST
G96:SUBTTL
D97:-----------------------------------
A98:A.  Story
A99:------------------
B100:Concept & Script
D100:[PRECISION 0] @IF E63=1 THEN 1 ELSE 0
F100:[FORMAT $ PRECISION 2] 25*F88
G100:[FORMAT $ PRECISION 2] D100*F100
G102:[FORMAT $ PRECISION 2] G100
H103:[FORMAT $ PRECISION 2] G102
A104:B.  Talent
A105:------------------
B106:PRODUCER/DIRECTOR
D106:[PRECISION 0] @IF E63=1 THEN 1 ELSE 0
E106:FEE
F106:@IF F88>1 THEN 50*G93*F88/60 ELSE 50
G106:[FORMAT $ PRECISION 2] D106*F106
A107:NARRATOR
D107:[PRECSION 0] @IFE67=1 THEN 1 ELSE 0
E107:FEE
F107:[FORMAT $ PRECISION 2] 5*F88
G107:[FORMAT $ PRECISION 2] D107*F107
G109:[FORMAT $ PRECISION 2] @SUM(G106:G107)
H109:[FORMAT $ PRECISION 2] H103+G109
A111:C.  Production Personnel
A112:------------------
B113:Videographer
D113:[FORMAT $ PRECISION 2] C92*E71
E113:DAYS
F113:[FORMAT $ PRECISION 2] 10*8
G113:[FORMAT $ PRECISION 2] D113*F113
B114:Prod. Asst.
D114:[FORMAT $ PRECISION 2] C92*E71
E114:DAYS
F114:[FORMAT $ PRECISION 2] 5*8
G114:[FORMAT $ PRECISION 2] D114*F114
G116:[FORMAT $ PRECISION 2] @SUM(G113:G114
H117:[FORMAT $ PRECISION 2] H110+G116
A119:D.  Production Expenses
A120:------------------
B121:Crew Meal
C121:[PRECISION 0] @CNT(D106:106)+@CNT(D113:D114)
D121:[PRECISION 0] @IF G65=1 THEN C92 ELSE 0
E121:days
F121:[FORMAT $ PRECISION 2] 18*C121
G121:[FORMAT $ PRECISION 2] D121*F121
B122:Petty Cash
D122:[PRECISION 2] C92*F88/60
E122:days
F122:[FORMAT $ PRECISION 2]25
G122:[FORMAT $ PRECISION 2] D122*F122
B123:Gratuities
D123:[PRECISION 2] C92*F88/60
E123:days
F123:[FORMAT $ PRECISION 2] 25
G123:[FORMAT $ PRECISION 2] D123*F123
B124:Transportation
D124:[PRECISION 2] @IF E65=1 THEN E66 ELSE 0
E124:miles
F124:[FORMAT $ PRECISION 2] 0.25
G124:[FORMAT $ PRECISION 2] D124*F124
B125:Misc. Expenses
D125:[PRECISION 0] @IF E65=1 THEN 1 ELSE 0
E125:flat fee
F125:[FORMAT $ PRECISION 2] 100
G125:[FORMAT $ PRECISION 2] D125*F125
G127:[FORMAT $ PRECISION 2] @SUM(G121:G125)
H128:[FORMAT $ PRECISION 2] G127+H117
A130:E.  Video and Field Equipment
A131:------------------
B132:CAMERA & RECORDER
D132:[PRECISION 2] @IF E71 THEN E71*C92 ELSE 0
E132:DAYS
F132:[FORMAT $ PRECISION 2] 25
G132:[FORMAT $ PRECISION 2] D132*F132
B133:Lighting Equipment
D133:[PRECISION 2] @IF E71 THEN E71*C92 ELSE 0
E133:DAYS
F133:[FORMAT $ PRECISION 2] 15
G133:[FORMAT $ PRECISION 2] D133*F133
G135:[FORMAT $ PRECISION 2] @SUM(G132:G133)
H136:[FORMAT $ PRECISION 2] G135+H128
A141:F.  Video and Audio Tape Stock
```

```
A142:------------------
B143:1/2" VHS Master
D143:[PRECISION 0] @IF F88 THEN 1 ELSE 0
E143:120 min
E143:[FORMAT $ PRECISION 2] 5.84
F143:[FORMAT $ PRECISION 2] D143*F143
B144:1/2" VHS Field
D144:[PRECISION 0] @IF F88 THEN
@INT((F88*G91)/120) ELSE @IF(F88*G91)/120<1<0
THEN 1 ELSE 0
E144:120 min
F144:[FORMAT $ PRECISION 2] 5.84
G144:[FORMAT $ PRECISION 2] D144*F144
B145:1/4" audio cass.
D145:[PRECISION 0] @IF E68=1 THEN ((F88/60)*3)
ELSE 0
E145:C-60
F145:[FORMAT $ PRECISION 2] 3.24
G145:[FORMAT $ PRECISION 2] D145*F145
G147:[FORMAT $ PRECISION 2] @SUM(G143:G145)
H148:[FORMAT $ PRECISION 2] G147+H136
A150:G.  Music and Audio Recording
A151:------------------
B152:Studio
D152:[PRECISION 0] @IF E68=1 THEN ((F88/60)*5)
ELSE 0
E152:hours
F152:[FORMAT $ PRECISION 2] 25
G152:[FORMAT $ PRECISION 2] D152*F152
B153:Musicians
C153:[PRECISION 0] E69
D153:[PRECISION 0] @IF E68=1 THEN ((F88/60)*5)
ELSE 0
E153:hours
F153:[FORMAT $ PRECISION 2] 35
G153:[FORMAT $ PRECISION 2] F153*D153
B154:Mixdown
D154:[PRECISION 0] @IF E68=1 THEN ((F88/60)*3)
ELSE 0
E154:hours
F154:[FORMAT $ PRECISION 2] 25
G154:[FORMAT $ PRECISION 2] D154*F154
G156:[FORMAT $ PRECISION 2] @SUM(G152:G154)
H157:[FORMAT $ PRECISION 2] G156+H148
A159:H.  Video Editing
A160:------------------
B161:EDITOR
D161:[PRECISION 0] C93
E161:DAYS
F161:[FORMAT $ PRECISION 2] 10*8
G161:[FORMAT $ PRECISION 2] D161*F161
B162:OFF-LINE EDITING
D162:[PRECISION 0] @IF E64=2 THEN C93 ELSE @IF
E64=1 THEN (F88*G91)/60 ELSE 0
E162:DAYS
F162:[FORMAT $ PRECISION 2] 25
G162:[FORMAT $ PRECISION 2] D162*F162
B163:Dubbing
D163:[PRECISION 0] @IF E64=1 THEN D144 ELSE 0
E163:HOUR
F163:[FORMAT $ PRECISION 2] 135
G163:[FORMAT $ PRECISION 2] D163*F163
B164:On-line Editing
D164:[PRECISION 0] @IF E64=1 THEN 1 ELSE 0
E164:days
F164:[FORMAT $ PRECISION 2] 800
G164:[FORMAT $ PRECISION 2] D164*F164
B165:Titles
D165:[PRECISION 0] @IF F88<0.99 THEN 0 ELSE
@INT((1/10)*F88)
E165:days
F165:[FORMAT $ PRECISION 2] 25
G165:[FORMAT $ PRECISION 2] D165*F165
B166:Dubs
D166:[PRECISION 0] @IF E70 THEN E70 ELSE 0
E166:copies
F166:[FORMAT $ PRECISION 2] 18
G166:[FORMAT $ PRECISION 2] D166*F166
G168:[FORMAT $ PRECISION 2] @SUM(G161:G166)
H169:[FORMAT $ PRECISION 2] G168+H157
A171:G.   OFFICE
A172:------------------
B173:TELEPHONE
D173:[PRECISION 2] G93/(4.2*7)
E173:MONTHS
F173:[FORMAT $ PRECISION 2] 150
G173:[FORMAT $ PRECISION 2] F173*D173
B174:COPY COSTS
D174:[PRECISION 2] G93/(4.2*7)
E174:MONTHS
F174:[FORMAT $ PRECISION 2] 30
G174:[FORMAT $ PRECISION 2] D174*F174
B175:POSTAGE
D175:[PRECISION 2] G93/(4.2*7)
E175:MONTHS
F175:[FORMAT $ PRECISION 2] 30
G175:[FORMAT $ PRECISION 2] D175*F175
B176:OFFICE SUPPLIES
D176:[PRECISION 2] G93/(4.2*7)
E176:MONTHS
F176:[FORMAT $ PRECISION 2] 30
G176:[FORMAT $ PRECISION 2] D176*F176
G178:[FORMAT $ PRECISION 2] @SUM(G173:G176)
H179:[FORMAT $ PRECISION 2] G178+H169
A182:--------------------------
-----------------------------------------
B187:SUB-TOTAL
H187:[FORMAT $ PRECISION 2] H179
B188:INSURANCE
H188:[FORMAT $ PRECISION 2] H187*0.03
B189:CONTINGENCY
H189:[FORMAT $ PRECISION 2](H187+H188)*0.01
E190:TOTAL
H190:[FORMAT $ PRECISION 2] @SUM(187:H189)
```

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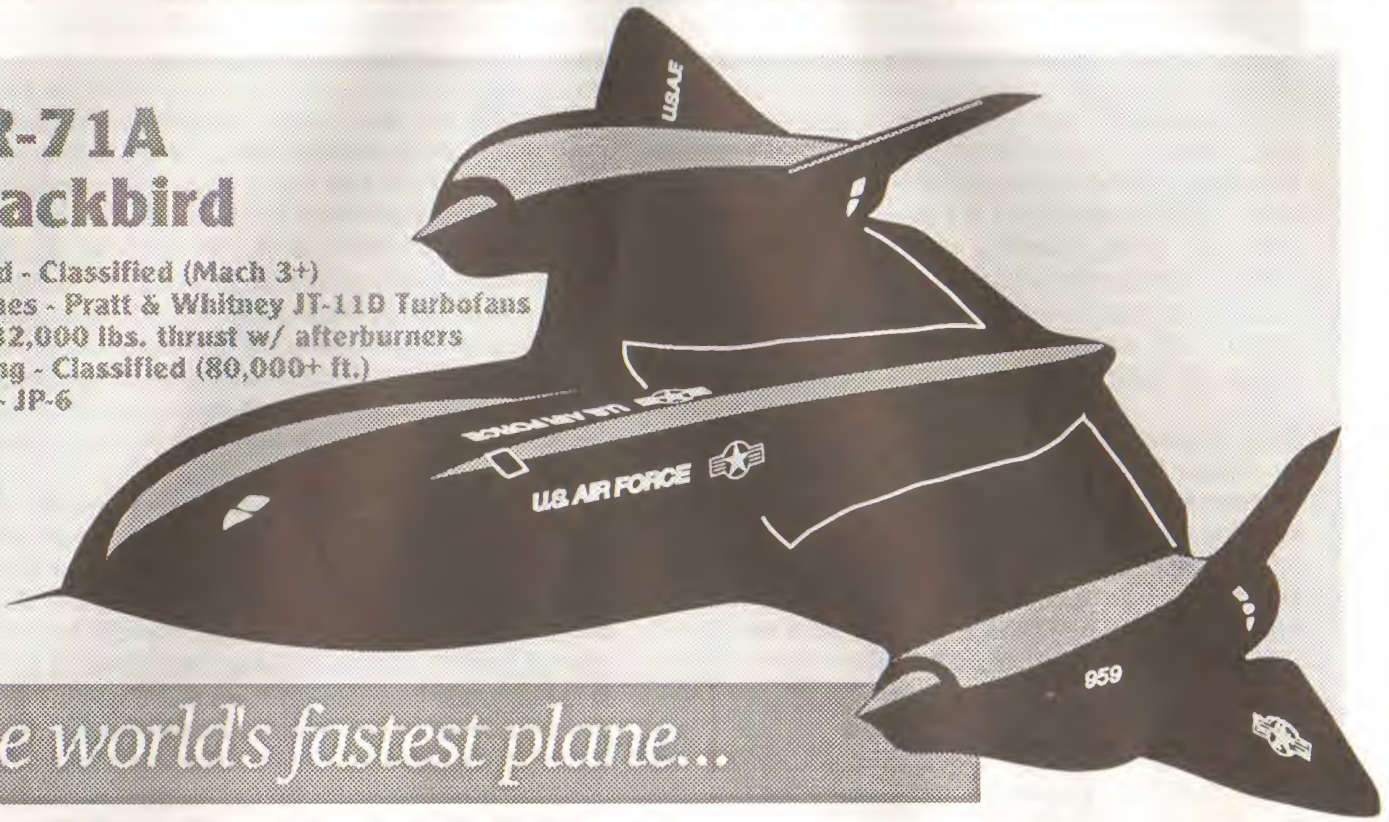

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The Ultra Speed Plus OS

The Operating System Atari Should Have Installed

by Charles A. Cole

The *Ultra Speed Plus Operating System* (*US+ OS*), developed by Bob Puff, is a replacement operating system ROM chip for your Atari XL or XE computer. Through the flip of a 3-position toggle switch, it gives you three operating systems in one. You can choose between the *400/800 OS*, the standard *XL/XE OS*, or the *US+ OS*. The *400/800* and *XL/XE* systems are pretty mundane, but the *US+ OS* adds many new features to your Atari 8-bit computer.

Basic Features

When in the 400/800 mode, an XL or XE is completely compatible with older software, thereby negating the need for a translator disk.

Another nice feature is reversal of the [OPTION] key function to disable BASIC. With this modification, holding down [OPTION] as you boot enables the built-in BASIC rather than disabling it. Since most commercial software has to run without BASIC present, this feature saves a lot of time normally spent holding down the [OPTION] key on XL or XE systems. This key reversal is true for all three OSs contained in the new ROM chip.

The center position, standard *XL/XE OS*, is used for those few pieces of software that refuse to boot on a modified system or drive, such as the *AtariWriter+* disk version, *Synfile+* , Electronic Arts programs, and some Broderbund software titles.

The UltraSpeed+ Mode Difference

The main features of the system, however, are in the *US+* mode. Bob Puff has refined and modified the original Atari *OS* and created the system that Atari should have installed in the first place. The features of this new OS alone make the modification well worth its price. I have been using the *US+ OS* for the past couple of years, and have grown so used to having it that I have to learn some commands all over again when I switch to a computer that does not have *US+*.

The first and most obvious difference is an improved screen clarity, because Mr. Puff changed the Atari's default screen color from light to dark blue. This may not seem like a big deal, but once you get used to this improved color combination, a standard Atari system really hurts and tires your eyes!

The second most important benefit to the *US+ OS* is faster disk reading and writing. An equivalent of the *Happy OS* has been programmed into the *US+*, which turns any XF551 disk drive into a real speed demon. The documentation claims a three-fold speed increase with XF551 and Happy drives. In combination with the 3-1/2 inch drive modification sold by Computer Software Services (CSS) and its improved XF551 ROM chip, and the *SpartaDOS X* cartridge's High Speed Sector Skew, my XF551 now emits a high-pitched squeal instead of the usual clunk, clunk I/O sounds. These three modifications together must equal a 10-fold increase in read/write speeds.

Other Features

For those interested in expansion memory, the *US+ OS* offers the ability for one or two megabyte upgrades without having to disable your internal basic as you might have to do with other upgrade plans. In this area, I cheated a little and bought a modified 130XE offered by CSS that already had the *US+* and a 320K RAM upgrade in it for $250, instead of trying to add my own memory modifications and possibly destroying my 130XE in the process. After all, they are much more experienced at that sort of thing than I am, and I know it will work if they do the installation. This way, I still have my stock 130XE to fall back on if anything should happen to my "good" computer.

If you don't like Bob Puff's choice of screen colors, you can easily change them from within the *US+ OS*. If you have young fingers around your house that like to play with your keyboard when you take a break, the *US+ OS* offers keyboard lock and screen blanking commands. This way, even if the kiddies do play Chopsticks on your keyboard, no harm is done to whatever program may be running at the time, and they will probably think the computer is not even turned on.

The Atari 130XE's self diagnostics test was improved to include all chips in the computer, both ROM and RAM, including any expansion memory you may have. If you think you might have a flaky chip, a 10 minute run of this module will provide an instant readout of your entire computer's innards.

Do you do a lot of disk copying? The *US+ OS* includes a built-in sector copier that sets up an internal RAMdisk for this purpose. You can copy a single-density, 720-sector disk into this RAMdisk on a 130XE, and then copy from RAMdisk to another floppy. That can certainly be faster than Atari DOS's 3 pass copier.

If you get tired of listening to your Atari's disk read/write clunks, chirps, and other assorted noises, you can toggle this off from within the *US+ OS* instead of having to turn down the volume on your monitor or TV.

The Atari screen defaults to a left margin of 2. If you are trying to read a 40-column text file on screen, this causes words to break and wrap around on lines that are a full 40 characters long. A margin toggle resets the left margin to 0, giving you the full 40 columns for text. Re-toggling returns it to its normal setting.

A standard 130XE can sometimes be very frustrating because of the time you must wait for the chips to discharge before you can reboot. The 130XE manual even warns you against restoring power too soon after turning the switch off. The *US+ OS* did entirely away with that by using chips that do not retain a charge. You can turn the power off and then back on again as fast as you want to without any adverse effects.

A built-in drive configuration menu can be changed to your particular desires if you operate multiple drives and RAMdisks. The default setting is for the 130XE's internal RAMdisk to be drive #4. You can even boot from the RAMdisk by redesignating it as drive #1 and copying DOS or any other program into it. You can even format your RAMdisk in either single or double density.

If the cursor moves too slow to your liking, no sweat. You can increase its speed at will from a snail's pace to near the speed of light. If you are running some software that also offers faster cursor movements, they will combine their effects to really zip around the screen.

When using the internal RAMdisk, any power loss means instant data loss as well. What if a program causes your system to mysteriously lock up for some reason, and you have something in the RAMdisk that you don't want to lose? With a standard OS, you have no choice but to turn off the power switch. With the *US+ OS*, you can do a RESET that will be the equivalent of a cold boot, but your RAMdisk contents are not lost because you do not have to turn the power off. In some cases, this feature alone may be worth the cost of the *US+ OS*.

And lastly, the *US+ OS* offers an improved math package in its ROM (FASCHIP) that corrects some of the shortcomings of the Atari floating point routine. Since BASIC programs rely heavily on these calculations, you will notice a definite speed improvement in BASIC execution. There will probably be some programs that will run too fast under the *US+ OS*. The *Software Automatic Mouth* (*S.A.M.*) speech synthesizer from Don't Ask Software, for example, may sound more like a soprano than a baritone, or talk too fast to be understood. Simply switching back to the *Standard XL/XE OS* will solve these problems.

Conclusion

For the features offered by the *US+ OS* modification, you can't go wrong. I have not encountered a single function that did not perform as advertised or even better than claimed. Bob Puff and CSS really deserve a gold star for developing this system--in fact, for all of their systems. In this age of shrinking Atari 8-bit support, CSS stands out as one of the best friends any Atari owner ever had. Get to know these people. You won't be sorry that you did. They offer several products for the 8-bit Atari, including repair service, that are top-notch. The *US+ OS* is only one of many CSS products that I have purchased over the years, and I have never been disappointed by them.

The *Ultra Speed Plus Operating System* (*US+ OS*) is available for $69.95 from:

Computer Software Services
P.O.Box 17660
Rochester, NY 14617

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9209?

Does your mailing label have 9209 on the first line? If so, the 9th month of 1992, i.e. September, is your last issue. Don't miss any issues. Renew ASAP!!

NEW! From the CN Library

ST REPORTS 1992

CN readers who have, and use, their modems can find on the national telecommunications services (CompuServe, Delphi, GEnie) as well as local BBSs, up–to–the–minute Atari news, new product announcements, transcripts of online conferences with major Atari hardware and software vendors, and lots and lots of discussion (questions posed, and answered) relating to the Atari platforms. If you don't have a modem and don't tap into this online world, or, find it relatively expensive to download files all the time, you are missing a whole facet of Atari computing.

For just those readers, we have arranged to make available a new series of disks, ST Reports, which will each contain two months of the *ST Report International Online Magazine*. This weekly publication will often fill 50+ pages when printed out and has a wealth of information for Atari owners. A double–sided disk, with two months of Reports on it, can result in 400 or so pages. That is a lot of information. The months covered (all 1992) on each disk are indicated below:

#SR1	January and February
#SR2	March and April
#SR3	May and June
#SR4	July and August

Disks are $4.00 each and can be ordered from the CN Library, 122 N Johnson Rd, Sterling, VA 20164.

TOS and DOS

Co-Existence At Last!!!

by Michael D. Wolf

My introduction to computers (four years ago) involved passionate dissertations by two close friends: one, a Mac Plus aficionado; the other, a DOS (4 mhz, 8088 processor, HeadStart) fanatic. I knew that I just had to have a computer, but "which one" was the burning question. The performance and slick graphic user interface of the Mac heavily swayed me, but I could not escape the lure of the DOS systems' color capabilities and massive program library. Still, after eight months of intense bombardment from both camps, I hadn't made a firm commitment.

Then, just as an outrageous, uncontrollable urge to buy a computer was pulling me into the DOS camp, a third friend appeared and introduced me to the Atari 1040ST. The decision was instantly made. After all, how could I pass up the 1040ST with its 8 mhz processor, DOS-like color and Mac-like monochrome capabilities, graphic user interface, built-in MIDI and sound, a $500 cost savings, DOS and MAC emulation capabilities, etc, etc, etc? I couldn't! And besides, the $500 savings certainly bought me a lot of nice software.

The 1040ST provided excellent service in word processing, games, and artistic applications and was eventually replaced by a four megabyte 1040STe. However, the Atari world was shrinking almost as fast as the DOS market was growing. Still, like all loyal computer buffs, I passionately clung to the 1040STe and touted its merits to all who would listen (and bent the ears of a few who wouldn't). But, alas, my office exposure with DOS systems continually exerted pressure to "conform to the norm."

To thwart the tide of DOS, I purchased emulators such as *pc ditto, pc ditto II* (hardware version) and, finally, a *Supercharger.* Since this hybrid system would support all Atari resolutions as well as VGA, I sold my RGB monitor and purchased a ACER multi-sync monitor plus an Omni switch (the Omni switch allows switching from color to monochrome and provides the proper circuitry to use a multi-sync with the Atari). This gave me the capability of super VGA (should I "ever" get a DOS system), allowed me to use my Spectre GCR (MAC emulator), and enabled me to avoid the clutter of two Atari monitors.

While this new set-up justified keeping the 1040STe and provided an excellent entry into the world of DOS, the emulators just weren't adequate to handle the types of work (on a consistent basis) that I was continually exposed to. And so, I took the plunge and purchased an eight megabyte, dual floppy, 205 meg hard-drive, CD-ROM equipped, 486 clone.

To Sell or Not Sell

Now, the dreaded question arose, "Should I sell the 1040STe?" It isn't as difficult a question as one might think. I simply examined my Atari system and quickly determined that:

1. I would take a financial beating if I sold it.
2. Several pieces of software cannot be matched by the clone system in price/performance/ease of use.
3. The clones do not have built-in MIDI capabilities (you have to spend approximately $500 extra to match the 1040ST/STe.)
4. I'm a techno junkie and just want a dependable back-up machine (in the event that either system fails.)
5. I have some software/games that are excellent and duplicating them in a DOS incarnation would prove very costly.
6. I would have to give up access to a multitude of Macintosh programs (run from the Spectre GCR.)

Two Computers, One Monitor

So, now the question became, "How do I get both systems working together, simultaneously, on one monitor?" This took three months of searching catalogs and phoning various dealers in pursuit of a monitor switch-box. I was repeatedly told, "no such box, to my knowledge, exists."

In frustration, I was about to attempt to build such a box when a catalog from JDR Microdevices appeared in my mailbox. In it, I found a switch-box that would handle sharing one monitor between two computers. I phoned JDR for advice and the technician explained that the switch-box contained diodes which allowed switching from one computer to the other while all components were turned on! Having the solution at hand, I ordered the switch-box and two monitor cables (you need two additional cables, one for each computer), for a total bill of $61.47, including shipping and handling.

Installation

The package arrived via UPS in six days and I hustled to the computers and eagerly went to work. Installation was painless:

1. Connect the monitor cable to the switch-box input connector.
2. Connect one cable to the switch-box "A" connector and the OMNI switch video input (OMNI switch output goes to Atari video input.)
3. Connect the remaining cable to the "B" connector and the 486s' video output.

That's it!!! Installation completed.

Simultaneous TOS and DOS

So, how does it work? Seam-lessly!!! I simply boot-up both computer systems, and, at the flip of a switch, I can see my TOS or DOS application desktops. This is especially nice since I currently use *Windows 3.1* as my operating environment on the DOS machine. *Windows* allows me to point and click to run a program, much like the Atari system. Additionally, I can open and run multiple programs (over 20 simultaneously) in the *Windows* environment.

Let's say that I want to download files from a BBS, do some 3D art work rendering (both are time consuming, automatic processes) and play *Battle of Britain.* I start my DOS telecommunication program from *Windows,* sign on and begin downloading. I then switch to another window and open my 3D rendering program, load the file to be rendered and start the rendering process. I now have two self-running programs going in DOS. I flip the switch on the monitor switch-box and start *Battle of Britain.* It's that simple!!! At any time, I can pause *Battle of Britain,* flip the switch, view the progress of either DOS program, and simply flip the switch to return to *Battle of Britain.*

Needless to say, *I like it!!!* In addition to this, I can run DOS applications and MAC applications via the same process. But it is only because of the flexibility of the Atari system (in its ability to emulate a MAC via the Spectre GCR) that I am able to do so. The Ataris' flexibility is quite amazing and unique among computers.

What It Takes

(Parts, Prices and Who's Got 'Em)

If you're thinking of a DOS system, here are the prices I paid (minus TOS and DOS computers):

1	Acer Multi-Sync Monitor	$400.00
1	Omni Switch	80.00
1	JDR Keyboard/VGA Switch-box (order# RSK 15-2WA)	34.95
2	JDR VGA Monitor Cable (order# CBL-HDB15-MM) 7.95ea	15.90
	Total	$530.85

JDR Microdevices 1-800-538-5000. Medionix Inc. (Acer monitor) 619-597-6000 (Omni switch.)

■■■■■■■

DEUTEROS

As the Commander of Earth City, Capture the World!

by James Parker

ACTIVISION

In the Beginning...

In the game *Millennium 2.2*, a gigantic asteroid had crashed into the Earth, destroying all human life in the cataclysm that followed. The only remnant of man was a small colony on the moon. From there your job was to somehow recolonize the Earth; but to do so, massive resources would be needed. Your scientists on Moon Base created specific human mutations that could live on other planets, in order to mine for resources. Eventually, Earth was restored, and Moon Base was abandoned. As time passed, man forgot about space flight and no contact was made with the outer colonies. Even Moon Base became a legend.

1,000 Years Later

Enter *Deuteros*. A thousand years have passed since then (the year is now 3100 AD), and the human race is just getting back into space. Just because things have been quiet on Earth doesn't mean that it's been that way in the rest of the solar system. The Methanoids and the Hydroids, the two races of mutants, have been at war. The Methanoids were the victors and now share the solar system with one other species-us. After the war, the Methanoids were too busy mining beyond the asteroid belt and developing new technology to pay any attention to us humans. Besides, we hadn't ventured out into space for over 1,000 years. There had been no contact with Earth.

You Are the Commander

You are the newly appointed commander of Earth City, where all research and training of recruits takes place. Your first job will be to train research scientists, production technicians, and mariners on Earth, which is where all research and training must take place. Your research team leader starts out as a technician, but as he researches new items, his skill, speed and rank increase, through Doctor to Professor. To run the factories, you'll need a production staff, and as you spread throughout the solar system, many production staffs. Your production leader starts as an Apprentice and progresses through Engineer to Expert as his skill increases. The Mariners are needed to run your spacecraft. When you start, you'll need a crew for every shuttle and ship. As your mariners gain experience, they will be promoted from Pilot to Captain, and then to Admiral.

After you have trained your recruits, put your research team to work. You can't build anything without researching it first, and when that's done, you'll need the raw materials to start construction. If you have the materials, then your production staff can start. The first thing you will want to build are several mining derricks, to improve your flow of minerals. Next, build a shuttle and eight orbital factory pieces and then you'll be ready to assemble it in orbit. All this is done with the mouse, and the only keyboard input is when you either name a ship or save a game. Your first orbital factory is a stepping stone to the rest of the solar system, and beyond.

As you train new recruits, build new gizmos, and balance mineral supplies, your mouse will get quite a workout. As your colonies grow, it can get hectic keeping up with everything. Luckily, there are devices you can produce that will automate many of the tedious jobs, and let you concentrate on the more important ones! As in *Millennium 2.2*, you don't really have much of an idea of what to do at first, besides build an orbital factory from which to produce larger ships and devices. I don't want to say too much, as most fun in the game is discovering what's out there, and researching new gadgets as your technology increases. You will eventually meet the Methanoids, and it's only then that you start to see the real plot. It's a great game, and very addicting, but it does have a few bugs in it.

Program Bugs

If you try to do something the program isn't ready for, or expecting, the game will lock up and display a series of letters and numbers across the screen. It's probably a memory address or something where the error occurred. Another bug is that your mouse cursor will move to the lower right hand side of the screen and stay there. There is no way to get the mouse responsive again except to reboot. Fortunately, you can save up to five games per disk, and if you save a lot, when the bugs do bite, it's not as painful. The game comes on two copy protected disks, and will not run from a hard drive. A nice touch is that if you have two floppy drives, it will use the second drive for your save game disk.

It's Hard to Put Down

It took me over 20 hours of play to complete the game, so be prepared to spend a lot of time in front of

your monitor. It's hard to put it down, as you are always wanting to colonize one more planet, research the newest device, or build the newest spacecraft. It's only when your mouse hand starts to cramp up that you realize you've been playing for five hours straight!

Deuteros really gives you the feeling of "being there," and although most screens are static, it fits the play of the game perfectly. Sound is limited to weird background type noises that also complement the game nicely.

If you liked *Millennium 2.2* or *Utopia*, you'll love *Deuteros*. *Deuteros* was tested on a Mega STe with TOS 2.05, so it should work with all earlier versions of TOS. It's good to see software companies producing products that work on all ST's! I'd also like to give Kudos to Rising Star Computers for testing the game on a Mega STe before mailing it to me. When you live where I do, it's a major headache to buy a piece of software then wait two weeks to get it only to find out it won't run on your system. Thanks again! *Deuteros* is by Activision Software and can be purchased for about $43.

(*Caution!* Do not read any farther unless you want *explicit* hints!)

Hints for the Commander

When you attack an enemy factory, send an I.O.S. fitted with a D.F.C.C., but without enough fuel to make the journey. To figure this, set the course, then read the E.T.A. Subtract the current time from the E.T.A. and use less fuel than the difference. When you run out of fuel on the way, disengage your engines and you'll drift. Advance time until the display reads that you are falling. Select dock, advance time, and you'll find yourself inside the factory. Click on the PANIC button, and you'll see a count down timer. Click on the levers to the right of the readout. The first time you do this, nothing will happen, and the factory will self destruct. You lose a ship, but you'll be able to research the self destruct mechanism. The next time you dock at an enemy factory, you'll be able to move the levers and deactivate the self destruct mechanism. Go to the store room and you should find a wealth of drones, and a nifty matter transmitter that you'll be able to research and produce. This will work on all factories.

Grab that Silver

Silver is your most important mineral. Set up and protect a factory on Mars, and have several I.O.S.'s mining the asteroids for silver. To get your first bit of silver, send an I.O.S. fitted with a grapple to the asteroids. It may take a while to find one small enough for the grapple to handle, but when you do, grab it and return it to Earth. When you get your first piece of silver, produce at least 3 Asteroid Mining Attachments. Send several I.O.S.'s back automated with A.C.C.'s and Asteroid Mining Attachments to mine continuously.

Mercury and Venus First

Set up factories on Mercury and Venus first. With factories orbiting Earth, Mercury, Venus and the Moon you have access to all minerals except Helium and Silver. If you stay away from the planets beyond the asteroid belt, you won't encounter the Methanoids. This will give you time to build up your mineral resources.

Trading with the Methanoids

When you finally do meet the Methanoids, send an I.O.S. with a grapple to dock with one of their factories. You'll won't be able to understand them, and you'll have to leave. Check your grapple. It should have an unknown object in it. Take it back to Earth and research it. You'll be able to build a Communicator with it. The next time you go back to a Methanoid factory, take along the communicator and 2 supply pods full of minerals. You'll be able to understand them now, and trade minerals. Here is a chart of what is traded for what:

Iron	Silica
Silver	Platinum
Aluminum	Carbon
Copper	Titanium
Hydro	gen-Methane
Deuterium	Helium
Palladium	Gold

The chart goes both ways i.e., if you trade platinum the Methanoids will give you silver.

Beware of Warlords

Beware when your S.C.G. commander advances to the rank of Warlord. If you leave him in command long enough he will mutiny and take your ship to the Methanoids. If you saved the game recently, simply reload and replace all Warlords with Admirals or Captains. Keep your pilots trained by using them on the shuttles. Even if the shuttle is using an A.C.C., the pilots will still get experience.

Mysteries Still Remain

I finished the game, but did not discover all the items to be researched. I never did figure out how to use the Fuzz Laser, and there were a couple of spots open on my research list. If you use the technique for capturing factories as described above, you will have no need for I.O.S. Drones. I had several thousand on hand at the end of the game, expecting all out armageddon. If you discover all the items and how they are used, I'd like to hear from you.

If you need more help, drop me line. I live in Naples, Italy, so it'll have to be via snail mail. My address is: James Parker, 6th Fleet Band, PSC 817, Box 47, FPO AE 09622- 0400.

GODS

Action with a Touch of Intellectual Challenge

Review by Alfred Charles Giovetti

The sell sheet and advertising copy describe *Gods* as a challenge to the intellect. After a quick glance at the box, the newly booted game showed the hero has more muscles than Arnold Schwarznegger, and less clothing than I did at the age of one minute. But this hero does not appear to have any brains. Even so, the game is intriguing and engaging, so we press on into arcade heaven.

Gods places you in the persona of Hercules, who is challenged by the *Gods* to survive the gauntlet of perils found in a legendary city and emerge to receive the reward of immortality. *Gods* is full of gratuitous violence, with a bit of puzzle thrown in to make it all the more challenging.

Gods, an action-arcade fantasy game, is the product of Bitmap Brothers, Renegade, and Konami publishing partnership. Bitmap Brothers brought you *Xenon*, *Speedball*, and *Speedball 2*, all games that were played so much by my nine-year-old son that the disks were worn out. *Gods* received no less attention in our household.

Gods is composed of four levels: the city, temple, labyrinth, and underworld. Each level has three worlds. At the end of each level is an enormous guardian. When you leave the game, you are given an individual code that allows you to reset your game to the beginning of the level where you are.

Gods is more than just an arcade game: it incorporates many of the best elements of adventure games. With character interaction, you can use monsters in the game to help you achieve your objectives. There are three distinct monster types, each with his own objectives and personality: the killer, the flier, and the thief. The killer just wades into battle swinging. The flier avoids your attacks while trying to land a lethal blow. A thief can steal objects inaccessible to you; but once killed, the thief will give you the objects. If there are no objects to be found, the thief will attack the main character.

The game has text that provides you with hints and advice. *Gods* responds to your skill level by making the game easier for the uninitiated and more difficult, with higher rewards, for clever solutions and maneuvers. Due to the individual nature of the "player monitor mode," each game is different. These differences are manifested in the personalized codes that allow you to save the game when you are between

worlds. The code not only remembers where you are, but your own individualized proficiency level and style of play are encoded into this restoration code. This "player monitor mode" makes *Gods* a special game.

Gods contains physical puzzles, object-oriented puzzles, progression puzzles, short-cuts, reward puzzles, and traps. The progression puzzles usually involve a progression of steps that allow you to move on to the next level. The reward puzzles require more difficult solutions, and the rewards are greater. The major object-oriented puzzles involve keys to open doors to other areas, or teleporters that open up hidden rooms. *Gods* has a four-object inventory, which is another example of how the authors of the game have blended two separate genre to form this remarkable game. *Gods* even has a store where the hero can purchase weapons, armor, and potions to help in his quest.

The 16-bit, 16-color VGA graphics appear to be 256-color, and are represented in surprising detail and precise texture. The richness of detail and the ability to go beyond the 16-color limitation make the graphics crisp and outstanding. The rocks look like rocks. The muscles look like muscles. The animation is fluid and smooth, with no visible stagger to the movements. The sound is quite good on all the standard sound boards, but the Roland is where the soundtrack shines. The music was composed by John Foxx, former member of the Ultravox band, in Rhythm King Records sound studios (Renegade is founding partners with Rhythm King Records).

Gods has already won many accolades, and has been selling well. *Gods* has captured the attention of the adventure game player and the arcade game player alike. *Gods* may well win some very spectacular awards. It certainly is one of my son's favorite games. If you like action with a touch of intellectual challenge, *Gods* may be the game for you.

Gods Price:	$39.95.
Versions:	IBM, Amiga, and Atari ST.
Category:	Action Adventure Arcade.
Ver. Reviewed:	IBM and Atari ST.
Required:	Hard disk, 12 MHz or better, DOS 2.1 or better, 640K.
Interface:	Keyboard or joystick.
Copy protection:	Hard-to-read dark-red code sheet.
Players:	one.
Skill level:	Beginner to intermediate.
Video:	16-color EGA, MCGA, VGA.
Sound:	Ad Lib, Sound Blaster, and Roland (enhanced sound).

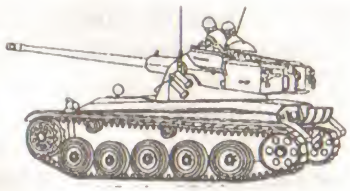
Konami Inc., 900 Deerfield Parkway, Buffalo Grove, IL 60089-4510. Telephone: (708)215-5111.

Bitmap Brothers, Unit C1, Metropolitan Warf, Wapping Wall, London E1 9SS England.

Pacific Islands

How Come All Games Aren't Like This?

by Mike Heininger, (c) 1992



Pacific Islands, the yawnsville name for the engrossing armored combat simulation *Team Yankee II,* like its predecessor is one of the greatest games ever to reach Atariland with superb playability, excellent graphics, and a friendly disposition that makes you smug about having invited it into your precious computer system.

Unlike many games—rude beyond belief in their paranoid copy protection and can't-be-bothered attitude toward Atari hard drives—*Pacific Islands* is reasonable with copy protection and a pleasure to install on hard disk. Copy protection simply requires identifying from the excellent manual pictures of three of the eight armored vehicles in the game. How utterly civilized.

Your Mission: Recapture Yama-Yama

The game could hardly be more enjoyable both near-term and long-term. Since the world is now in the wonderful position of having few black hat nations, the best villains this scenario can conjure are (gasp) North Koreans and disaffected Soviet Communists. The four Team Yankee tank units are deployed to recapture the five Pacific islands of the fictional Yama Yama atoll seized by haven't-gotten-the-word Commies.

Yama Yama has been a U.S. communications link for the early warning monitoring system (which obviously wasn't geared to the monitoring of this revolting development). And we want it back.

Be Careful What You Blow Up

The *Pacific Islands* box must be forgiven for being misleading as it shows helicopters, an F-15, and two Stealth fighters in treetop level support of an M1 tank landing on a beach. None of the aerial wizardry is in the game. (And Stealth fighters certainly are never used at low level in broad daylight!)

Casual disciples of mayhem can still have a blast hopping from vehicle to vehicle to personally pull the trigger on every enticing target in sight. But don't expect to "win" the game this way.

You see, *Team Yankee II* (strictly unofficial name with infinitely more marketing arf) has become politically correct. Warriors of the 90s, it admonishes, must be more political and fiscal. So if you blow up any "unnecessary objects" like islanders' property, you will be fined. No kidding. It is to barf.

The best warriors always have been heedful of what to destroy and what to spare, even though pillage and plunder no longer are fashionable. Wrapping this axiom in financial penalties is degrading to professional soldiers. But ... it does make brownie points with cost-crazed mufti.

You've Got 40 Mintues to Win

So go with the flow and enjoy the game as best you can with your own weird personal mental baggage. Again, however, if you want to "win," you'll have to "achieve your objectives within 40 minutes." And that's for *each* of the five atolls. As the excellent 72-page wirebound manual emphasizes, "You may have won because you have reached a desired location, held a defensive position for enough time, or destroyed the majority of the opposing forces." And vice versa.

Money Matters

Money is crucial to success. Campaigns begin with $55 million financing. You can continue indefinitely until recapturing the entire Yama Yama atoll or running out of money. You get credits for battle victories or destroying key enemy installations, but you are debited for "gratuitous collateral damage.

You also have to pay to restock vehicles damaged or destroyed as well as ammunition expended. Fun, huh? Well, just accept the premise, avoid Attila the Hun tendencies, and you should do OK without spending more time on the calculator than the firing button.

What's New in the Sequel?

Team Yankee has been reviewed by many sources, so let's concentrate on the differences of its *Pacific Islands* sequel. The manual's two-page Chapter 11 includes the following *PI* highlights:

- Play is not entirely sequential; no scenarios are repeated at a more complex level.
- You control funding of your entire campaign.
- A minefield (250x250m) occasionally can be planted—both by you and the enemy!
- The 3-D quadrant views add dead stop and zoom icons (great for quickly halting to blast distant hostiles). Dead stop is also added to the full-screen 3-D views.
- Objectives are more complex, e.g., destroy any communications facility encountered.

- 3-D routines have been speeded up, allowing villages to sometimes be created.
- Opposition control is now more intelligent.
- A genuine line of sight now operates.
- Tree-line camouflage is more acceptable.

A Must Buy

Like its *Team Yankee* progenitor, *Pacific Islands* is one of the few games to rate Must Buy. Emphasizing playability rather than maximum technical realism, *Pacific Islands* joins such classics as Lucasfilm's *Their Finest Hour* and *Battlehawks 1942* as among the few Atari games to be not only eminently playable, an optimum choice between technical realism and game pleasure, but eminently installable on hard disk and eminently reasonable in copy protection.

Falcon remains the epitome of jet fighter air combat simulation but is occasionally cranky. MicroProse games (e.g., *F-19 Stealth Fighter, Silent Service, M1 Tank Platoon, Gunship)* are unequalled in strategy and detail, but usually are difficult if not impossible to install on hard disk. Many otherwise commendable games are too technical, too hard to install, too hard to run, too temperamental, or too ridiculous in copy protection to enjoy without serious reservations.

So if you have the most remote interest in a thoroughly pleasurable armored combat simulation, buy *Pacific Islands* and join the rest of us in beaming, "Now *there's* a great game! How come all games aren't like this?"

[Pacific Islands was tested on a Mega ST4, TOS 1.0, with hard disk. Works well with AdSpeed and TweetyBoard. About $45. From Empire Software, 4 The Stannetts, Laindon North Trade Centre, Basildon, Essex SS15 6DJ; telephone 0268 541126; fax 0268 541125.]

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ERRATUM

The report of the price Atari received for the sale of its Taiwan plant in Bill Yerger's article, "Atari's Stockholders Meeting," CN July/August issue, should have been $60 million (not $460 million!).

LEGEND

Too Much of a Bland Thing

by Fred Percival

Anthony Taglione and Pete James wrote one of the most successful ST games of all time. *Bloodwych* was released in 1989 and was the best *Dungeon Master* clone available for the Atari until 1991's *Knightmare*. Now, almost three years later, the "Tag brothers" have completed their second game. This new offering, *Legend*, is very different from *Bloodwych*. It is also much less entertaining.

Third Person, not First Person

Isometrics is the hot look in ST role games this year. Instead of a flat first-person view, you see an entire room viewed from an upper corner. *Legend* is constructed on an isometric platform, with the party of four rambling about the dungeon floors, moving around and interacting with 3-D objects and opponents. They open and pass through doors, open and loot chests, throw levers, and battle bad guys.

The 3D implementation compares poorly to other iso games like *Populous*, *Breach 2*, and *Cadaver*, however. In these three games, consistent scale was sacrificed for viewability. *Legend's* characters, as well as objects, are scaled to be consistent with room sizes. This means they are quite small—so small that details are difficult to distinguish. Also, no walls are ever shown in the dungeons; just floors and doorways. By contrast, Cadaver features interesting walls and a vertical game element—multiple levels and climbing over objects—that really make the environment 3D. *Legend* is only 2D; nothing ever moves off of the floor. Overall the atmosphere is not compelling, given the tiny scale, lack of backdrops and ground-only animation.

One aspect of the game that is handled well is movement of the party. The controls are *Populous*-like icons arrayed around the 4"x4" on-screen platform. All movement is controlled by the mouse, and the whole game can be played with mouse icons. Key equivalents are available for non-movement commands, however. Like the game *Drakkhen*, you move a character by clicking on a destination. If you move one character, any others who are in the way will move to let the leader pass. And, characters follow the leader from room to room dependably. This is a huge improvement over *Drakkhen's* clumsy party movements.

The Four on the Floor

The four characters are the obligatory hacker (Berserker), a thief (Assassin), a magician (Runemaster) and a Bard. The Bard fights and can play tunes that boost party attributes as long as the Bard plays. He/she also knows a very handy ditty that heals wounds. The Assassin can become effectively invisible, so as to stab opponents in the back more readily. The Berserker does as advertised, going into a slashing frenzy when prompted. There is a LOT of combat in the game, with randomly generated opponents appearing in hallways with mind-numbing frequency. Any player who does not enjoy constant combat is going to become bored very quickly.

Combat as a Spectator Sport

Combat looks like a square dance until you get used to it. You just put the party into combat mode and they mill around with whatever opponents they're fighting (with sound effects). At first it's difficult to keep track of which figures in the swarm are yours. But you eventually become able to distinguish them. It's important for each character to use his or her special ability in combat, but you must manually select it at the start of each scuffle. Doing this for each of four characters gets old in a hurry. Combat spells are totally under player control; you select which spell and where to throw it. Of course, the opposition throws spells around as well.

You do have some limited control over party combat actions; for example, you can rally the group around a beleaguered member, or have everyone flee the room by clicking on the chicken icon. But for the most part, after you "turn on" each character's attributes, combat is something you watch rather than control.

Runes and Reagents

The heart of *Legend's* gameplay is the magic system. The Runemaster mixes ingredients and runes to manufacture spells. Spells can have many components, achieving several objectives in one throw. Mixing complex spells is like programming a macro instruction. This is all right, but frequent use of magic requires a huge supply of materials, so logistics is an important part of a Runemaster's craft. The Ultima-like raw materials requirement makes magic use more like assembly line work than craft. An example of a complex spell is "Heal, Antimage, Surround, Paralyze, Continuous, Damage, Missile, Damage." This single eight-part spell would require the mixing of eight runes and eight ingredients. The spell's effect is to heal the caster, protect the caster from magic, define the area of influence for the rest of the spell as the area around the caster, cast a paralyze spell on those eight locations, make further effects continuous, cause damage, fire missiles in aH directions away from the caster, causing damage on explosion ... all from one cast!

Rune Rooms

The game relies heavily on the complexity of the magic system; many puzzles require compound spells for solution. Common features of dungeon rooms are floor tiles bearing magical runes. An example would be a room with the magic Damage rune shown on some floor tiles. There is a switch and a door in the room beyond some water, and, therefore, inaccessible. Also on the far side of the water are more Damage rune tiles and two towers. Firing a "Missile, Damage, Damage" spell at the nearby Damage rune tile causes the towers to fire damage spells at some of the distant Damage rune tiles. This, in turn, causes a new floor tile to appear on the water, allowing your characters to reach the switch. Throwing the switch rotates the towers; further spells and manipulations eventually allow access to the door.

Life Outside the Dungeons

There is more to *Legend* than the dungeons. Up above on the surface there is an invasion by evil forces taking place. As usual, some "strange and powerful entity as old as the world is stirring in its sleep." Your party must defeat several invading armies, and spend much of its loot to help the town garrisons hold off the hordes. Exploration of the many dungeons in the game is necessary to prepare the four adventurers for the inevitable final confrontation. The villages, towns and keeps have shops for supplies and equipment, temples where characters pray and make offerings for luck points, and taverns where information can be had. A Guild, where experience points are cashed in for level increases, exists in one town only.

Too Much of a Bland Thing

Legend is an ambitious undertaking, with a large scope and a decent, complex plot. The manual is complete and informative, unusual for a Eurogame. The movement of the four party members is superb. But the overgrown magic system, tiny graphics and constant combat quickly caused me to lose interest. I have played many good, involving role playing games on the ST. Unfortunately, *Legend* is not one of them.

Legend is published by Mindscape International. It comes on two double-sided disks, with protected formatting. The manual is much better than most from Europe. Advertised prices are in the $40-$45 range. The game was released with a serious problem. It does not save games on Mega ST's, and presumably any machine running TOS 2. Mindscape has fixed the file routines and has the repaired version of *Legend* available on request.

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Fore! Golf Simulations

It All Started with Leader Board

by Mike Heininger, (c) 1992

Nothing like a rainy day for enjoying an exciting game of golf through the wonders of personal computer simulation, right?

Well, sorta. Like all simulations, it depends a lot on how much you like the real thing that is being simulated. As a once- or twice-monthly peak season occasional hacker, I can take or leave golf. So my perspective of the following four golf simulations—*MicroProse Golf, Jack Nicklaus' Greatest 18 Holes of Major Championship Golf* (and the world's longest game title), *Leader Board,* and *Mean 18*—is pretty much fun with an attitude: "Prove you're worth my time." That viewpoint may be quite different from yours. But I bet we can agree that most of these four fores offer something useful that we can't quite match anywhere else.

This is not an in-depth review. Instead, it's the kind of quick, casual appraisal we all make when we're not deeply committed, but still receptive to a game. We'll start with an overview, then compare major characteristics, and wind up with recommendations.

Overview

MicroProse Golf, 1992, $45, is typical MicroProse with an extremely detailed, informative manual (112 pages plus 2 Atari unique pages, 1 club card, and 6 color course cards) that guarantees it the Play Until You Die Longevity Interest award. *Jack Nicklaus* (to abridge the nine-word title), 1990, Accolade, $32, offers not only Big Name endorsement, but the Big Name's favorite 18 holes in all of golf! For everyone who has ever wondered what a $125-a-round course looks like, this is mecca. *Mean 18,* 1987, also Accolade, cost not recalled, was popular with its unique feature of allowing players to design their own courses. Consequently many courses became available, even on public domain disks. I was given *Mean 18* for Christmas in 1987, but its crude graphics and tendency to bomb early relegated it to the also-ran pile of disks. *Leader Board,* 1986, $30, Access Software (Bruce and Roger Carver), was the first golf game I bought, shortly after I bought my Atari 1040ST. Unfortunately, it is one of the first and last games using the obscene and blessedly rare "security key" copy protection, a plastic plug that must be inserted and kept in the joystick port for the game to run. Consequently I rarely play *Leader Board,* although when I do, it's intuitive and fun.

We're talking about three golf simulations because *Mean 18* always bombs before I get very far into it—usually about the second hole. I've also tried *Greg Norman's Shark Attack* (1990, $40, Melbourne House) and *Challenge Golf* (1991, $30, On-Line Entertainment) at L&Y, but neither seems sufficiently better or different to buy it. What is special about the three we are talking about, and which is best?

Leader Board

With only one disk and no computer opponents, *Leader Board* is fast loading, fast playing, and quite intuitive. Driving power and timing are the familiar vertical thermometer design; putting is also the same idea in eight-foot increments. Wind and its direction are indicated by a logical stake and shadow which also show height and direction of slope on the green. *Leader Board's* manual needs only 16 small pages. Aim by holding down the left mouse button. Hit the ball by clicking and releasing the right mouse button a couple times. Choose one of four incognito courses. Play medal, match, or best ball, but don't expect *Leader Board* to keep score on anything but the simplest.

No computer opponents emerge on *Leader Board,* but it's fun and quick to play your own human foursome with others or yourself. Categories of pro, amateur, and novice are distinguished by such variables as whether wind speed affects play.

Graphics are nice, but flat and lack contour. The biggest problem is inadvertent club change, selected by rolling the mouse forward or backward. Well, I don't think *Leader Board* is much available anymore. Costing $30 in 1986, *Leader Board* is still great fun if you can find it.

Jack Nicklaus

Jack Nicklaus, apparently Accolade's heir to *Mean 18,* is fascinating simply because one of the three courses is called the "greatest 18 holes of championship golf." That alone, since it reflects the opinion of one of the greatest golfers, is niche enough to buy it.

But the *Jack Nicklaus* copy protection is the most visually sadistic anywhere. It's a wonder Accolade hasn't been sued out of existence by people blinded trying to match black-outlined holes on a deep maroon sheet. Can't photocopy it? Can't read it either—or just barely. Genuinely awful-generating the hate few products can survive!

Like *MicroProse Golf* and *Leader Board, Jack Nicklaus* demands boot loading. Play speed is moderate, with screen refreshment an irritating left-to-right slow curtain. Nine personalized computer opponents are available, including Nicklaus himself and four women, but often computer opponent play is maddeningly slow² just as real golf can be.

Driving is by vertical thermometer, aiming by aligning a ball at the top of the screen with the pin. Putting is also by vertical thermometer, but hard to align because the aim point is behind the hole. That's as absurd as aiming a gun as if the sights were behind the target! Slope of greens is indicated by a circle with a clocklike hand pointing to slope direction as a power bar beneath indicates wind speed.

Play options are skins or stroke, each with two to four players, at levels of beginner, expert, or professional. Graphics are good, with some hill effect. Club selection is easy with vertical arrows. Sound is good, even some speech, and OK on TweetyBoard.

MicroProse Golf

MicroProse Golf takes a long time to load, has moderate play speed, and a difficult driving gauge of a semicircle from 1 o'clock to 3 o'clock instead of the familiar vertical thermometer. Complications include nine possible lies from fluffy (top of grass) to plugged (nearly buried in sand) and the ability to adjust tee height, angle of your feet, and placement of ball toward front or back foot.

Calling itself 3-D, *MicroProse Golf* offers overhead views of each hole (as does *Jack Nicklaus)* with ability to rotate view through four directions. The main 3-D effect is achieved by ball flight monitored from one of five camera positions reflecting MicroProse's long experience with multiview simulations.

Six courses are included on the three disks, which have 11 play options: medal, skins, head-to-head, tournament, singles, three ball, four ball, best ball three or four, threesome, or foursome. Players can be human or computer, novice or handicapped based on past scores (default is 28 handicap).

MicroProse Golf offers good graphics, game saves, statistics, and driving aim. *MicroProse Golf* also features saving up to six player profiles, 12 replays, and 12 game positions; righthanded or lefthanded players; and automatic distance in putting (i.e., click when the horizontal putting thermometer color reaches the tick marks).

That automatic distance putting seems to negate many of the comparatively more difficult options available in the driving, pitching, and chipping, but sinking a putt is surprisingly difficult in spite of contour grid and behind-the-hole viewing options. Weirdly, no player is seen when putting in *MicroProse Golf,* adding to the paradoxical ho-hum let's tap it in attitude toward what can be the most demanding aspect of golf. Screen refreshment is fast, and club selection usually is automatic.

And the Winner Is...

So which of these three golf simulations do I play the most? Frankly, none of them. To be excruciatingly honest, I rarely go more than five or six holes any time I play any of these golf simulations. Which reflects my casual interest in golf, not the merit of the simulations.

But I do know enough golf to know what to enjoy, so just as in real golf, the infrequent times I play them I enjoy ... all three: *MicroProse Golf, Jack Nicklaus,* and *Leader Board.*

This in itself is a selection, not a copout. Note I was given *Mean 18* but do not play it because it bombs frequently. Note I tried but did not buy *Greg Norman's Shark Attack* and *Challenge Golf.* Others might prefer them; I don't.

Leader Board reminds me of *Advanced Destroyer Simulator* and *Sherman M4*³not the most complex games, but easy to intuitively enjoy. *Jack Nicklaus* is a nice middle ground, sort of like *Team Yankee* and *Pacific Islands* tank simulators.

And *MicroProse Golf*? "MicroProse" says it all⁴instructional, educational, fairly technical, and the most long-range potential because of its complexity, which also makes it the most short-range deferrable.

If I had to buy them in sequence instead of concurrently, I'd go from most simple to most complex: *Leader Board, Jack Nicklaus, MicroProse Golf.* Each has at least one major irritant: the copy protection plug in *Leader Board,* the copy protection blinding black on deep maroon paper in *Jack Nicklaus,* the half-moon swing thermometer in *MicroProse Golf.*

Most of all, this shows the importance of niche marketing. It is rare to find any single product so good it completely overshadows all competitors. What is more appropriate than golf simulations to remind us, "Different strokes for different folks"?

Played on a Mega ST4 with TOS 1.0, cold boot from Drive A only. Leader Board availability uncertain; marketed in 1986 by Access Software Inc., 2561 S. 1560 W, Woods Cross, Utah 84087. Mean 18 availability uncertain; marketed in 1987 by Accolade, 20833 Stevens Creek Blvd., Cupertino, CA 95014; telephone (408) 446-5757. Jack Nicklaus from Accolade, 550 S. Winchester Blvd., Suite 200, SanJose, CA 95128; (408) 296-8400. MicroProse Golf from MicroProse, Unit 1, Hampton Road Industrial Estate, Tetbury, Glos. GL8 8LD; telephone 0666 504326; fax 0666 504331.

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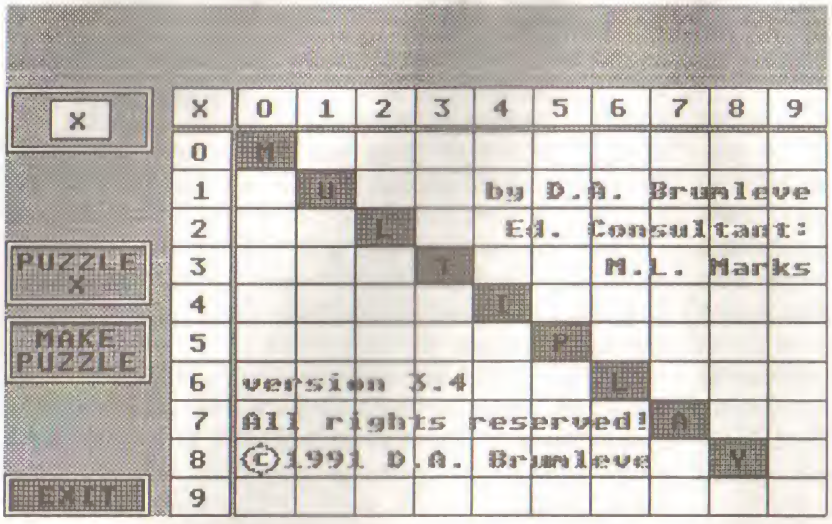
Multiplay



Math Exploration, Discovery, and Practice.

Designed for children 5 – 11.

Review by Bill Mocs

In education the most teachable subject, both in school and at home, is math computation. Very young children often learn beginning concepts by counting common objects. Many of us learned the basic facts by penciling down short marks and placing them into either larger or smaller groups. Using variations, the basic operations of addition, subtraction, multiplication, and division can be understood.

While these steps can help us see the truth behind the abstract, there is still a need for the drill, the practice. Making three marks in one circle and then making four marks in another circle may show us that there are now seven marks all together, but how quickly can we answer the problem "3 + 4"? It takes effort to learn all the basic facts we need to know.

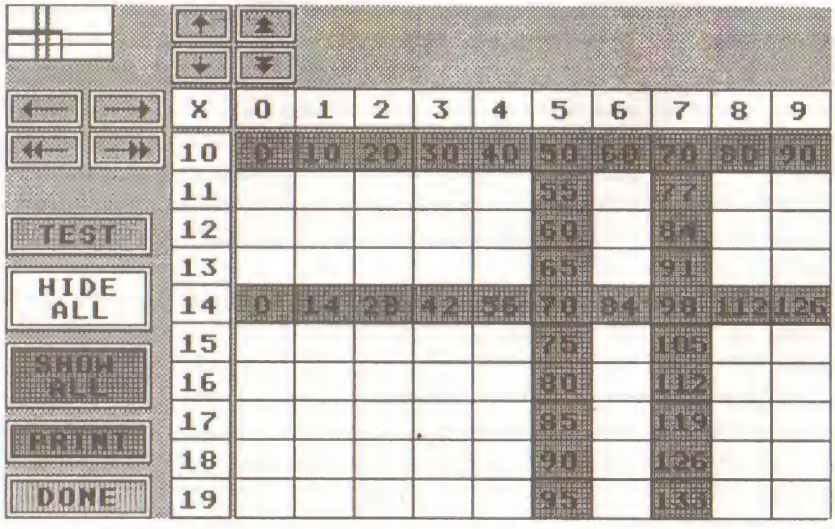
And when we see that 2 X 5 = 10 and 3 X 5 = 15 and 4 X 5 = 20 and 5 X 5 = 25, we're beginning to see a pattern for multiplying by five. Math patterns help us learn and remember the basic facts more quickly.

Games and programs in math computation have always been popular and common on computers. Beginners' texts in computer programming, whatever the language studied, almost always deal with numbers and basic operations in the early chapters. And many of us, as we learned BASIC or another language, practiced by writing a math drill program for our own children or for our own amusement.

Multiplay, a recent release for the Atari ST, offers children aged 5-11 the chance to explore and discover number patterns for addition and multiplication, along with the opportunity to practice basic facts or simple problems.

The program comes on two single-sided disks, one for addition and one for multiplication. The detailed 28-page documentation booklet explains the easy process of combining the two onto one double-sided disk and selecting from a handful of options designed to tailor the auto-loading program to each child's needs.

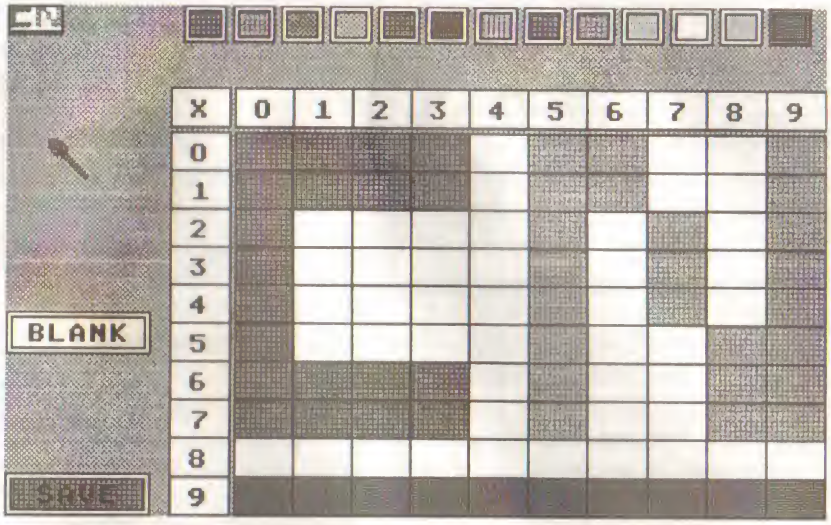
Those options include offering problems with numbers from 0-9, 0-19, or (with a 1-meg ST) 0-29. It's possible to print the problem grid shown, either with or without some or all of the answers. A puzzle/game section allows one or two players to fill in the grid with colors as problems are answered; and there's an option available to make additional puzzles. An exit to desktop is also a possible option. A color monitor is required.



The Pattern Screen

A 10 X 10 grid is shown. If numbers available range 0-19 or 0-29, arrows are displayed for movement to various sections of the grid. All or some answers may be shown or hidden. By clicking on a column or row, that entire column/row may be filled or blanked.

It's possible to take a 10-problem test on problems; simply click on a box and then key in the answer. If there's a mistake, a second chance is offered. Color is used to shade the problems answered correctly or incorrectly.



A 10 X 10 grid may be printed with any printer that accepts an ST screen dump. (If your printer does not work with the print option, you're encouraged to contact the authors for assistance.) The printed grid may include blank spaces for practice or may have some or all of the answer blocks filled.

A real key to using this pattern screen effectively is for the parent or teacher to encourage the child with suggestions andgoals. There's a three-page section in the documentation offering ways to look for patterns and ideas for the child to explore. It's a most important section.

The Puzzle Screen

A one- or two-player game is available. Each player enters his name and a puzzle is selected. Once the puzzle grid is shown, the player clicks on a grid block and keys in the problem answer. If the answer is correct, that block and all other blocks designed with that color are filled with color. Play continues until the design is complete. As it's completed, a small version of the design is created in the upper left of the monitor's screen.

Again, arrows allow movement to different areas if it's a 0-19 or 0-29 grid. Scores are based on the problem's answer, so the problems with higher answers yield higher scores. Of course, they may be harder to solve, also.

Problems may be displayed horizontally or vertically to the left of the grid and the scores are shown above the grid. The best scores are saved to disk, with a separate file for each operation and for one- or two-player versions.

In addition to using the puzzle screens already prepared on the disk, it's possible to make your own puzzle screens. A 10 X 10 grid is shown and each block is painted one of 13 colors.

While 100 blocks do not allow great variety, it's possible to creatively design some interesting puzzle scenes. Up to 50 puzzles may be saved to disk. Then, when a child wants to play a puzzle screen, he may choose to play either screens selected from the original disk or those designed with the puzzle maker.

A puzzle editor is also provided on the program disk to delete puzzles no longer wanted. When this editor is used, each puzzle created with the puzzle maker is shown and you're given the option of removing it from the file.

Summary

Multiplay ($40.00) is an interesting and worthwhile addition to the library of learning software for the ST. It lacks any timed drill in math facts, but software for that more direct drill-and-practice is already available.

Multiplay offers children the opportunity to learn some of the basic patterns in our number system while addition and multiplication facts are studied. The puzzle screen should be enjoyed for its colorful, often surprising, scenes and for the opportunity children have to create their own math-related pictures.

The software is easily used and, with the installation program, it's possible to provide different options for children of different abilities. As is true with most learning software for children, those who benefit the most will be those whose parents or teachers provide some channels to explore.

D. A. Brumleve, the program's author, has published a series of software for young children. Other programs she has available include: *Kidpainter* (graphics and paint...$35), *Kidpublisher Professional* (desktop publishing ... $40), *Super Kidgrid* (graphics design ... $25), and *Telegram* (silly song player ... $25). She has also released many programs available on public domain disks. Her target audience is children aged up to about 11.

Small World

Goin' to School

by David Small

I am a survivor of College, specifically in the field of computer science. (I have this piece of paper that says I'm a "Bachelor of Science" in "Computer Science" ... "bachelor" ?!? What's Sandy going to say about *that*? Wait a minute, *she* has one, too! Bachelorette?) Anyway, as a survivor, one of those who climbed out of the smoking, cratered, Iraqi-like ruins of a higher educational institution, dressed like Mad Max in the Road Warrior, my dog "Dog" at my side, (complete with my knee brace!), and now as a person with 12 years perspective on my internment in the concentration arena, I feel I should at least try to pass along a few words of advice to the young folks who are going to a school, possibly for the first time, this year. In that way, I can possibly preserve some fairly valuable knowledge and "pass it forward."

Two Routes

What is college for? Well, the way I had it explained to me, you can do one of two things. You can get out of high school, have no "piece of paper," and not be able to get a high-paying job. You then end up doing exciting things like mowing lawns, flipping burgers, and running people's charge cards at gas stations. (I was about to say "pumping gas," but that would date me!—I did that.)

This is not optimal.

Or, you can go to college. There, something happens (no one really tells you much about it, except a few tantalizing details of beer busts, women, and Finals, sort of like an R-rated movie), and you get your "B.S." paper. With this paper, you are then snapped up by one of a hundred companies who actually come to the school ... whoa! ... to talk to *you* ... and pay you big bucks to come program for them.

This seemed more optimal to me. I did this.

Rule One: This is not the way it is.

The Other Routes

What I was *not* told was that there were other options. For many people, going straight from high school to college doesn't work, and it's hard to ever try again. Some of the happiest people I know took a year or two off, worked, travelled, didn't work, got a little perspective on what the world *really* was like (high school has little to do with real world), *then* went to college.

Some of the very best hackers I know of just considered college a waste of time; they were already busy designing musical synthesizers for Apple II's or disk duplicators and accurately measuring magnetic flux events on floppy disks every 62.5 nanoseconds (billionths of a second). The finest hardware *and* software person I have ever known went this way, and pretty much does what he wants; I had the luck to be on his computer system, and thus in his user group, while I was in high school, and so I found something I could do with myself: creating on a Hewlett Packard 2000C' timesharing system.

Or take (for example) someone like our own fairly awesome Dave Troy, who is in college right now, but also running a respectable business as an Atari dealer, doing real-world things in business and mixing them together with the quite unreal world of college. Dave reminds me, oh, of some of the hottest rock from the band Boston, and I have no problem telling you that one of the reasons I enjoy *Current Notes* so much is what Dave writes here.

Well, back to college, assuming you decide to go ... and can afford it. You *do* realize that the average age of people in the USA is now 33, and that employers are *desperate* to latch onto qualified *young* people who might want to stick around awhile; they're hard to find! Hence, you might find that spending two years for a "lesser" degree, and some *real world* experience in computers (repeat after me: *Lotus 1-2-3*, *Word Perfect*, *dBase* ... and a little experience with *PageMaker*, a Mac, and a LaserWriter is great) might just be the ticket.

None of your Atari experience is going to *hurt* you in any event. You may get real annoyed with other computers and the stupid way they do things, compared to the Atari, but the Atari can really often serve as a model of how to get things done. Just seeing "Folders" in a window, instead of "subdirectories," cleared up the concept of folders/subdirs for a friend of mine instantly.

The Real Truth

In your first year of college, you're going to discover that you're not in Kansas anymore, Toto (assuming you're not going to Kansas State.) There is some pretty weird stuff going down here, that is Real Different.

The first thing is this 1984'esque thing called "grades." Let me explain. You're given a "grade" on your work, test scores, how many times the teacher sees you coming for help, whether you sit in the front row so he remembers your face, and so on. Consider this amazing thing: a "C" grade is considered "average" ; it is a 2.0 on the "grade point" scale. If you make all C's, you are (theoretically) doing "average" ; half the people are above, half the people are below you.

Yet, 2.0 is the cut-off point where they kick you out of school; I know it well, for my first semester was a 1.8. (I plead culture shock). I was on aca-

demic probation my second semester, but pulled the net GPA up past 2.

Now, what's wrong with this picture? You see it. If you're "average," then you're 50th out of a 100; there are 50 people below you in grade point *who are supposed to flunk out*, every semester, twice a year.

This means that each school year, with its Fall and Spring semesters, the school population *should* decline by half twice; after four years, assuming 100 people entered the school, 0.3907 people should graduate. (Go ahead and do the math—divide 100 by 2, 8 times for the 8 semesters. 0.3907 of *one person* is left.)

Rule 2: Grades are of a different reality, like quantum particles.

Yet we still see gymnasiums full of grads, so, obviously, more than four tenths of one made it through the eight-semester gauntlet. Hence, there is an *amazing* gap between grades and *reality*, and you should lose any notion instantly that grades mean anything in the real world. They do not. And you can have it work for you, or against you.

Rule 3: College grades should be considered as nothing more than one ASCII character, and *not* representative of your intelligence, skill, or willingness to work.

Examples, both ways: In one particularly boneheaded computer class, the instructor assigned us the writing of a computer program, by hand, in class, as a 1-hour test. I wrote it up and checked it as best I could. When he graded it, he marked it "wrong" in an obviously correct subroutine. I took it to him, and we sat down and line-by-line executed the WHOLE PROGRAM. Where he had marked "wrong" ... well, he WAS wrong, so I suppose it was correctly marked. <chuckle> Alas, near the end of the code, I made a simple mistake, so he looked at me and said, "I just *knew* there was a mistake here somewhere."

Reality Check: How many computer programs ever run on the first try? Is this something to *grade* on? I've done it *once* (the Neil Young story I have often told is true).

Rule 4: Professors stoop to incredible lows to find ways to assign grades, because they have to.

So I got a bad grade in that class, having something of a reality and attitude problem with it. And I just loved the other class where the school's budget could only afford NAND chip gates—so we had to build up every other type of gate out of NAND's to make circuits (which you can do—Seymour Cray built the Cray-1 out of ECL NAND gates). But we spent 90% of the time on "busy work," cobbling together "OR" gates and later, tearing them back down.

In another class, the class's textbook was, well, the teacher's, and *not finished yet*. We literally got 8 1/2 x 11 photocopies of the *manuscript*, little hand-drawn diagrams, and we got to "beta test" all the bugs in the book (there were *lots*), for no pay. Of course, the book cost full price. Another downcheck.

Rule 5: Remember; you're paying for this.

On the other hand, you can make this stupid system work FOR YOU, with the magic of "Independent Study." This is where you become friends with a teacher and cook up a three or four credit-hour self study on whatever *really turns you on*. I did one of these on an ARP-2600 synthesizer (yeah, I know...) and made a two-minute demo tape for my "grade" ; I put all sorts of technology into that tape, from a feedback-driven guitar sustain to a wah-pedal controlled by a light-sensitive resistor controlled by a light bulb on the outputs of a Sherwood amp; I fed the Sherwood a sine wave, accelerated its frequency, and made this ...SOUND... that gave me goose pimples, and which I've been known to put on Mac Emulator release disks as a hidden dedication page. I had *great* fun, stretched my knowledge, and the ARP's transistors, to the very limit, and I got a four credit A. Those four credit A's are like the "healing" potions in dungeon games; they offset those "D" things in dweebo-taught computer classes.

This is the best secret I can give you to make it through college relatively unscarred. Independent Study.

Rule 6: If the classes are meaningless, make up your own. At least you will learn something!

It is the only reason I graduated, with one of the lowest GPA's ever successfully graduated at that school. However, I learned a great deal that came in handy in my career, as it stands, far more than if I had stuck to The Standard Curriculum.

Get to know the professors; they're people, even if they're a little weird. Be pleasant to the crazies, but really get to know the nice ones. There are always a few decent ones who want to see someone try something new on a self-study. Some of the professors there really are trying to expand knowledge; others are playing politics, yada, yada. ("Yada" is a trademark of Gary Hudson.)

I also did a self study on assembly language of the school computer mainframe. I learned a lot. Oh, my, did I learn a lot. Did I ever learn a whole big amazing lot. About memory partitions; about supervisor control programs; about how companies really ought to think before allowing timeshare on a formerly batch-only system, and the weaknesses that show up therein.

Rule 7: Sometimes you can learn something *important*.

Why, I'm shocked to tell you that the operating system code for the whole shebang becomes a local file if you stop a FORTRAN compile from a timeshare terminal (which could not happen in batch, see, so they never covered that weakness), and can be disassembled, and studied, night after night, at your room. A bit of study of that code is *very* interesting. Buying some 1600 bpi magtapes ($15 each)

helps; check them in under a pseudonym!

You see, that whole ridiculousness of grades, sadly, means *you are in competition* with your classmates. Look, the teacher *has* to give some low grades, some high grades, and a lot of middle grades, and will invent, if necessary, a way to do so (like writing programs in class).

Rule 8: Grades are there *only* because they have to be; even if everyone is excellent, *someone* has to get low grades, someone has to get high grades.

I learned about this competition in a particularly graphic way: trying to get enough computer time to debug my programs, in competition with my class. When the 50-odd students in my class descended on the computer center, it could take *hours* for your program to move through the "Input Queue" and run *once*. This made debugging impossible; look, we were writing *heavy* stuff, like assemblers and compilers! Many good people burned out staying up *all* hours when the computer ran somewhat faster.

Rule 9: Well, in that one way, college trained me for real life.

Unless, of course, you had studied the assembly language of the computer's scheduler, and *specified* a very small memory partition for your program; the default size was set wrong. The system scheduler was built to "fill holes" in computer memory, and small partitions were a dream come true for the scheduler; it could fit my programs in when my classmates, with their (huge) 55K Pascal jobs, could not. I could typically get in as many runs per hour as I could debug (just like using a micro), and they'd get one per hour, with lots of head-scratching debugging.

The system scheduler also had another "feature." The setup was, it kept X users in memory, running their programs. When you had been in memory for 10 seconds, and gotten some CPU time, you were "rolled out" to disk and left there to rot a long time, behind everybody in the input queue. Well... press the BREAK key. The system *must* process your interrupt; it asks you if "you'd like to continue" (press y, RETURN) or abort (press n, RETURN). Press y,RETURN. Get this: Because the system had to process your interrupt, *you are now back in memory*, for a new 10 seconds.

And guess what you do 10 seconds later, and 20, and until your program finishes.

Thank heavens more people didn't figure this out until Finals week when the computer lab work was done. There is no way I could have gotten the programs done without this, and other tricks. I was very busy, taking many classes, trying to make enough credits to get out of there.

Stress

The stress of this Alice-in-Wonderland grading really told on the people I saw. All their life they had been told that grades really meant something, that an "A" was important. Now they were in a situation where an "A" was impossible to get, because programs cannot be written perfectly without test runs in an hour or if you simply cannot get CPU time to debug your hashing algorithm. While other things get blamed, ultimately it's the stress that wrecks a lot of people at college. (Sure, it's good preparation for life, a boss, taxes, and such; no, I don't think there is any excuse for it.) You really have to find a way to detach yourself, and after all the conditioning of high school, it's hard.

Rule 10: Dealing with stress is probably the most important thing you will learn, or fail to learn, to do at college.

One girl I knew overdosed accidentally in college from trying too hard for grades; the only reason she started was to find some way to relax and get away from the stress. (She eventually pulled through, but her life was changed forever. At least she's not in college anymore.) It's a bit difficult for me to be judgmental anymore since I learned that stress is far more likely to kill you, and kill you young, than anything else. And I've found far, far, far, far more "recreational" and "fairly necessary" "substance use" in the computer industry than I *ever* saw in college; if one person chooses the "legit" Prozac route and another a, well, different route to handle life working at some well known computer companies, I'm not going to hand them flyers about "Just Say No." Stress kills.

Now that I've depressed you about the futility of college, let me tell you what it's *really* for.

College places you in conditions somewhat closer to real life, e.g., combat, requiring discipline and disassembly (grin) to get through, and prepares you for what you're going to find when you graduate. What a "degree" is *really* about is that a corporation knows you can hang in there for four years of dorm food and lousy working conditions, so you *might* survive the corporation for the two years you are a drain to them while you learn the ropes. Nothing more, but nothing less.

Rule 11: This means, of course, the brightest and best, who won't put up with losing four years to essentially a stress test, never go to college. Wozniak went to college *after* making Apple a huge success.

There are some good sides to college, and if you work at them, you can *almost* handle having to be there. (Primal scream therapy can be helpful and is often conducted at "football games.")

There are some fine young women with this certain ... look ... in their eyes, who go to lots of parties and out on dates. I remember one named Mindy at my school. Curiously enough, about second or third year, they appear sporting an engagement ring, and leave school to get married. This is done so often it is called "Getting a degree in M.R.S.," and is the first time I knew what a deer feels like on opening day of hunting. You want to talk about being eyed for husband material, I'll tell you about it.

Rule 12. Some things cost some too much.

Rule 13: Everyone wishes they'd dated more in college.

Rule 14: Everyone forgets how terrifying it is to ask/be asked for a date.

You may find for the first time in your life that there are a lot of people whom you get along with, especially if you're one of the lonelier personality types (NF, NT), who are 1 in 10 outside of college. College particularly concentrates NT's, into computers, architecture, and science. Computer people take note of this!

With any luck, you'll take the hint from the fun you had talking with these people, in the late-night sessions, and work somewhere where there are more of them.

(I believe online networks are the best we can do for many people in locations away from the centers.)

Well, That's One Way to Do It

So what happened to me? I spent the first couple of years fumbling through until I steadied into a career of independent studies and an absolute minimum of the required classes, which I thought were useless. (This proved correct; mainframe theory ain't that useful these days). I tried living in the dorms for a year, got tired of the food, and lived with a couple of girls the next year; (well, they were friends and needed a third roommate to pay the rent). This is highly over-rated in a one bathroom apartment; however, they more or less housebroke me. ("You *will* clean the soap rings out of the bathtub.") Amazingly, we're all still friends; one is now a programmer, one is in England with two little girls and her Air Force officer.

And I grew to appreciate dorm food; it's plain, but there's plenty of it. Don't be too quick to move out; Corn Flakes for dinner is the pits.

And, through a friend, I met this fascinating woman named Sandy Heidlebaugh in my dorm, who had read the same books I had and who had no limits on her dreams and who knew where Mordor was and her name in Elvish. It's still carved in the rocks up by the reservoir in the mountains.

The second two years of college were spent around Sandy. Nothing else mattered as much. Computers? Be serious. I learned a lot about living day to day with someone, getting through arguments and surviving, and in general, we both lost a number of irritating qualities. That was the most important thing I did in college, by far.

Rule 15: There is no finer place to "meet someone" than college, which is essentially a concentrate of people you're looking to meet. Sure saves kissing a lot of frogs.

And then it was over; we graduated ... and I chased Sandy enough that she finally caught me.

That's one way to do it. Try to make one uniquely your own.

See you next time!

Current Notes ST Library - New Disks for September

#730: **ORCS**: Otto's Resource Construction Set, Version 1.0, Copyright (c) by Th. Otto. (See ST Toolbox column in this month's issue.)

#731D: **Cyber Animations**: Here are three impressive animations to amaze and impress your friends: Gunship, Lamp, Vidibat. Includes animation player. All files compressed. (Color)

#732: **Music Studio Demo** for the Roland MT-32, by the Atari Users of N.Texas. Compiled by Marcus Arreguin 6/92. You will recognize many of the 27 songs on this disk. They are configured to take full advantage of your Roland MT-32. This demo requires a color monitor. But those of you who only have a monochrome monitor may play the songs back on a Music Studio player.

#733: **dbWRITER** (M). Version 1.8 of the monochrome word processor now has support for the thesaurus (available on CN #734D). Full featured ST text processor features spell check with the 40,000 word dbWRITER dictionary (CN #734D), search and replace, custom printer drivers, page preview, mail merge, text block options, columns, custom interface and more! Requires a minimum one meg of memory.

#734D: **dbWRITER Dictionary/Thesaurus** (M). dbWRITER 40K word dictionary and 30K word thesaurus desk accessory (can be used from any GEM program). dbWRITER Desk Accesory Suplemental Dictionary Creation Utility and the seven supplemental dictionaries: Math, Biblical, Computer, Legal, Medical, Names, Pharmaceutical.

#735D: **Terminal Programs**: FreeZe Dried Software Terminal V2.20, shareware by Aaron Hopkins. ANSITerm, Shareware by Timothy Miller Version 1.5.

#736D: **Games** (C): Moonlord ST, shareware by Clayton Wannum; Munchie V1.0, shareware by Robert Dytmire; and Drachen Chineze puzzle game (English version).

#737D: **Arena Earth** (C). Win over your opponent by catching him in traps or by direct confrontation. Included documentation explains how to play. Shareware by Tim Basham.

738D: **TW Fonts #1**: 42 (ARCd) fonts for That's Write: Avantgard, Anticap, Antiknp, ... Karin.

739D: **TW Fonts #2**: 32 (ARCd) fonts for That's Write: Keltic, Kinder, ... Yuppie, Zapf.

Disks are $4.00 each (10+ are $3.5 ea). Order from

CN Library
122 N Johnson Rd
Sterling, VA 20164.
(703) 450-4761.

VISA and MC orders accepted.

Current Notes ST Game Library

Here is a complete catalog of game disks available in the CN Library of shareware and PD disks. We have completed a thorough review of our game library, combining many SS disks into DS disks and eliminating marginal games. The majority of these disks are now DS and, since CN disk prices remain only $4.00 per disk, represent exceptional bargains. Remember, disks are only $3.50 each in quantities of 10 or more. Stock up on some terrific game software at very economical prices. Note: see the list of new disks introduced this month for more additions to our game library.

#139D: MONO GAMES

ATARTREK – Atari Trek
BATTSHIP – Battleship
KRABAT – chess game from Germany
MAZEMAKR – Maze Maker
ORIGADV – a text adventure
POOLMONO – pool game with 6 balls
PUZZLE – PuzzlePuzzle, a labyrinth in which you move forward by completing each of several puzzles
WINDOW – Window Ball (like breakout)

#153D: ADVENUTRES

HACK – One of the earliest adventure games.
EAMON – Eamon adventures (Beginner's Cave, Devil's Tomb, Eamon Death Star, Holy Grail.

#209D: GAMES (C)

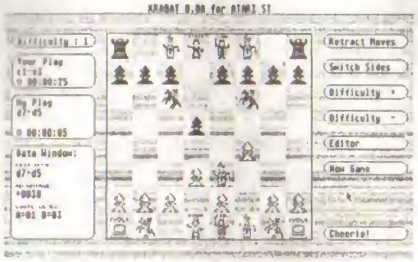
DARTS – Dart game written in GFA BASIC.
G_RANGER – Galactic Ranger arcade game.
MILBORNE – Classic card/race game
NIM – GEM–based version of NIM
STVEGAS – Four games in one! (Poker, Roulette, Black Jack, and Slots)
TRUCKER – Text based game, get your loaded 18 wheeler to it's destination on time.

#211D: KID GAMES (C)

BARNYARD – Tiffany's Barnyard, by Frank Hundley. Animals are hidden behind the doors. As in Concentration just find both pictures of each animal.
DLXPIANO – Deluxe Piano provides a nice step up from KIDNOTES.
DOODLE – one of the first drawing programs out for the ST but it is very easy to use.
KIDNOTES – Kid Notes allows a child to select from a list of songs (just click on the appropriate picture) and then play that song by clicking the mouse on the red key on the displayed piano keyboard.
KIDSKETC – Kid Sketch, a very simplified drawing program for the younger kids.
KIDMUSIC – Kid Music, click on one of 8 pictures and here a little song play.
KIDPIANO – Kid Piano, a simplified keyboard for young kids. Click on the notes and here a piano or organ play.
KIDPOTATO – Kid Potato, put together your own Mr Potato Head.
KIDMIXUP – Kid Mixup, presents 4 pictures that tell a story when placed in the proper sequence.
KIDSABC – ABC's teaches the Alphabet Song

#213D: MONO GAMES

MEGAROID – Megaroids the Asteroids clone
RUNNER – Arcade game, pick up treasures while running from bad guys. Press button to dig hole (but don't fall into it yourself!) Kill off pursuers by leading them into the hole you dug. Get all the treasurers and move to higher level.
SPACEWAR – Fight a Klingnon cruiser in the heavy gravity near a star.
SQUIXX – Try to wall as much of the playing area



KRABAT2 CHESS from CN #213

as possible while avoiding the gobbling creatures and the spikes.
ADVENT – Adventure writing system.
DALEKS – A variation of Robotron, avoid getting caught by robots.
KRABAT2 – German Chess game with English commands.
STOCKS – Version 2 of Stocks and Bonds board game.
BREAKOU – Breakout clone ACC game.
ELIM – Shareware card game.
REVERSI – Othello clone ACC game.

#269D: MONO GAMES

CRIBBAGE – play the computer in Cribbage.
DRAWPOKR – Game of draw poker.(C/M)
MEGAMA11 – Mega Maze 1.1 is an adventure maze of sorts.(C/M)
ANDURIL – Anduril game
BALLER – Ballerburg
DIAMOND – Diamond Miner
INVADERS – Invaders game
SNAFU – The Snafu Principle
MONOEMU – Monochrome Emulator Program, allows you to run mono programs on a color monitor.

#297D: GAME DEMOS (C)

ACS – Amazing Construction Set, a drawing and maze generation program, demo v1.01 lets you draw shapes that the computer turns into mazes.
SHANGDEM – Nice demo of Shanghai puzzle
HERO – Graphic adventure game.

#313D: GAMES (C)

AZARIAN – Beta version of a space shoot 'em up game. Low–Res.
DGDB – Das Grosse Deutsche Ballerspiel, German game similar to Shamus on the 8–bit system.
SORRY – Computer version of the board game,
ZOLTAR – Arcade game similar to Galaxian. Define your own alien ships, flight paths, speed.

#314D: GAMES (C)

BULLET – Pilot your train fast enough to avoid pushing train while watching out for dead–end tracks and box cars blocking your way. No Mega.
DAMONOID – The Damonoid arcade game. No Mega.

#316D: GAMES (C)

CASINO KENO 1.0 faithfully simulates keno games in Nevada, allowing the player to mark on a keno card up to 15 numbers out of 80.

#326D: GAMES (C)

BATSHIP – Battleship, play against the computer
CLOWNS – Monkeys and Balloons clone.
COREWARS – Core Wars (knowledge of assembly language programming recommended).
ESCAPE – Escape (adventure type maze).
FUN_LAWS – just for reading
INVADERS – Space Invaders for the ST.

#348D: GAMES (C)

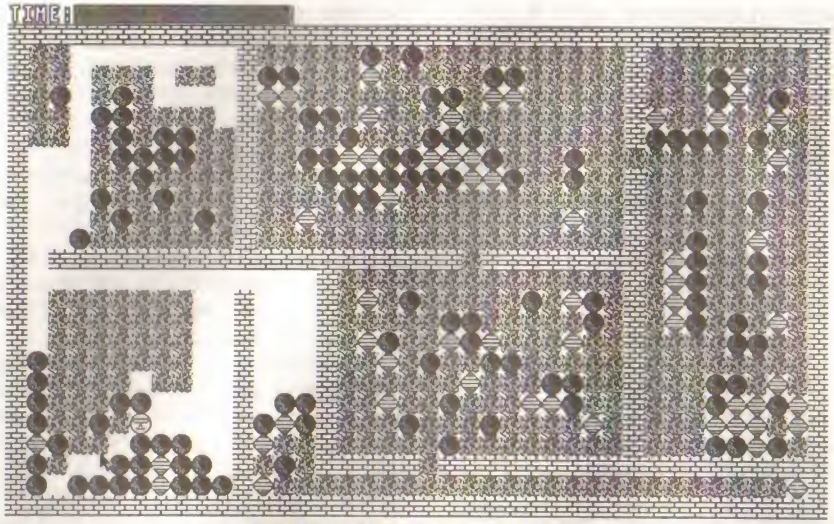
A_SMASH – Atom Smasher, a breakout clone.
BLOCKADE – Alien Blockade, a Qix clone.
FLY_ROCM – Companion I, interesting arcade action.
DPOKER – Draw Poker.
HAUNTED – Haunted House, arcade game demo.
TRIVIA – Trivia Quest.
BLASTERC – a Defender clone.

#356D: GAMES (C)

BOGGLE12 – Cadenza Bog Version 1.2, Boggle clone with dictionary.
BOLO – A super game from Germany that is a cross between Breakout and Arkanoid.(C/M)
EXTENSOR – This game is based on the movie TRON, specificially the "LIGHT CYCLE" Sequence. You are in a light cycle. As you (and the computer controlled drones) move along you build a wall behind you. Hit your wall, or the drones wall and you die! The option of the game is to box in the drone or drones while at the same time avoiding getting boxed in or hitting a wall yourself. If you get the other drones boxed in until they run into a wall you win!

#360D: SIMULATIONS (C)

HERO – HERO! V 1.0, by Dan Winslow. The beautiful Princess Pulchra has been taken captive by the really naughty wizard Baldur. The King wants her back, and you being a real Hero, have determined that you will rescue her. in order to do this, you must find your way to the lowest section of the dungeon and find the room containing the princess.
MIDWAY – Midway Battles, by Walter & Carol La Foret. This is a complex game simulating the battle of Midway but the mechanics of play are easy to grasp. All input is done with the mouse; you never touch the keyboard. The system requirements are an Atari 1050ST, 540ST. Optional, an opponent, snacks, and a book on the Battle of Midway.
RACE02 – Bermuda Race II. The objective is to sail from Newport, Rhode Island to Bermuda in the least amount of time. The normal sea–going obstacles may be encountered. The player reaching Bermuda in the least total time wins the race and may be listed in the players hall–of–fame.



DIAMOND MINER from CN #269

#363D: ADVENTURES
DUDLEY – A Dudley Dillema. You are a Harvard Univ. student living in Dudley House in a quest for knowledge, adventure and a diploma. This award–winning game is a very clever, humorous and challenging adventure in the classic style of Infocom.
TARK – Tark is the Priestess of the first church, in her battle against the demon of dark desire. Based on Dungeons and Dragons theme.

#365D: ADVENTURES
RAPTURE – Love's Fiery Rapture, a torrid tale of what could turn out to be the perfect date, a parody of romance novels. (R)
SUSAN – Susan, A Lustful Game, is an adults–only R–rated game where you attempt to score points with your girl friend, Susan. (R)
RING – Des Ring Des Nibelungen. You play the role of Siegfried in an adventure based on the operas of Richard Wagner, complete with a very tender and loving Brunnhilde. A very unusual approach to an adventure game.
PORK – A parody of the Infocom game of ZORK. If you were ever frustrated by ZORK, playing this game is your chance to enjoy the sweet fruits of revenge.

#366D: ADVENTURES
AGT – The Adventure Game Toolkit. This is a shareware product that lets you construct your own adventure games. Complete docs included.
SOURCE – The source code to 9 additional AGT adventures: Colossal Cave Adventure, Crusade, Elf's Adventure, A Fable, Ghost Town, Paranoia, Odieu's Quest, The Squynchia Adventure, An Underground Adventure.

#373: GAMES (C)
STRIP – Strip Breakout, breakout game although the paddle is on the right side of the screen and the ball bounces horizontally. As the bricks are eliminated, the picture underneath is gradually revealed. When all the bricks are gone, a new screen, with a new picture, is drawn. 27 screens in all. Adults only.

#383D: BASEBALL
BBALLSIM – Version 2.00D, (Demo version), of a baseball simulation game. The American PaSTime Baseball Simulator provides a rich and accurate simulation of the game of baseball, from the viewpoint of the manager. Results are based on the actual statistics of the players entered; variation from reality will be approximately the same as the actual variation players experience in real life. It is possible to play a fully managed game in 10–15 minutes, or as many automatic games as you like in less than a minute each. Thus, it is very easy with this system (including the input and statistics programs) to play entire seasons, using either real, drafted, or imaginary teams, comparing the long term strength of teams, testing theories of lineups, pitching, and so on. This demo version has all features implemented with the exception of the save data feature. Thus players do not accumulate data from game to game with this version as they do on the real version. (C/M)
BASEBALL – Statistically Accurate Baseball is a shareware product that, like the game above, let's you simulate a baseball game. (C/M)

#387D: TAIPAN II & MAPS
TAIPANII – Trave the world during early 1800s and trade in different items and cities as you engage in combat with enemy ships. (C).
EMPIRE – A collection of all of the maps for Empire we have been able to find, over 120 maps in all.
DUNGEON – Having trouble solving Dungeon Master? Here are the maps that will help you.

#391D: MONO GAMES
BREAKOUT – Super Breakout, A very nice variation of Breakout with an editor.
PENTIMO – terrific puzzle that will provide you with hours of entertainment. Place 12 pieces in box! 100+ solutions.
MACPAN1 – As its name implies, MacPan is a Pac-Man clone.

#426D: MEAN 18 COURSES (C)
11 new and exciting golf courses for use with Mean 18: Stumpy Lake, Oval Creek, Bow Creek, Oceana, Red Wing, Castle, Lee Park, Kapula, Lunar Link, Short Course (best short holes in USA), and Greatest (18 in US).

#428D: GAMES (C)
ECO – Fascinating ecology animation game.
ORBIT – Terrific break–out type game. (Not with TOS 1.4.)
ROCKET – Rocket Patrol, a Missile Command clone
TRIFIDE – Galactica/Space Invaders type clone

#429: GAMES (C)
BLOCKADE – Alien Blockade, a QIX clone that will keep you occupied for a long time!
A_SMASHER – Atom Smasher, another break–out type arcade game.

#431: KID GAMES
KP_DEMO – Kidpublisher Prof Demo, a desktop publishing program for young writers, by D.A. Brumleve, for Ages 5–11. The program provides a what–you–see–is–what–you–get text editor and a drawing program. Each drawing is linked to a page of text. When printed, each page has a drawing on the top half of the page with the text below it. The program works well with most dot–matrix, jet, and laser printers. (Printing disabled in demo version.)
KIDPUB21 – An earlier, less fancy version of Kid Publisher.
KSHAPES – Kid Shapes, for ages 2–8.
KSHAPESP – Kid Shapes Plus, for kids 8 and up.

#438D: MONO GAMES
TETRIS – popular falling blocks game.
MPOKER – Draw Poker, V2.5, try your luck at cards.
DRACHEN – Dragon, a German version of Shanghai.
SOKOBAN – This is a graphically simple, but intellectually interesting little puzzle game. Includes 42 different puzzle screens.
MINIGOLF – Put–put golf game from Germany
PBMCHESS – Play–by–modem chess game
GILGALAD – Adventure game from Germany
GNCIPHER – Cipher program, try and guess solutions

#463D: GAME DEMOS (C)
BLODWYCH – Fully–playable "Dungeon Master" game by Mirrorsoft. Includes split–screen for two–player simultaneous action. The demo includes only level one of the castle and has no sound.
BLOODMON – Blood Money, horizontally scrolling shoot–em up.
WIPEOUT – Intergalactic Hoverboard Challenge pits you against a host of hostile aliens.
FONEVOIE – Phone Voice, create crazy messages for your telephone answering machine!

#478D: GAMES (C)
FIGHTER – The STellar STarfighter (arcade action)
FLIGHT – Flight Levels (more arcade action)
JUMPSTER – Q–Bert clone
LUNACY11 – Lunacy! V1.1, (no TOS 1.4)
SPACEWAR – SpaceWars V1.0, New Outer Space Shoot 'em up game.

#479D: GAME DEMOS
HEROIID – Demo version of Hero II gaming system includes Dungeon Construction Set.

SWIFTAR – Limited featured demo version, 3 out of 10 levels are active and will test your skills to the full, at least for 5 games.

#500D: GAME DEMOS (C)

STARBLAD – Starblade demo may not work on a Mega or with TOS 1.4. It works fine on a 1040 ST.
YOLANDA – you get to see a lot of screens, but as soon as you die, and that will be quickly, a brand new screen is shown. It will take some practice to master screens since you don't see the same screen every time your character is eliminated.
RICK – Rick Dangerous should also present a real challenge.

#502D: GAME DEMOS (C)

PHOTON – Photon Storm.
AQUANAUT – Aquanaut.
GLOVES – Kid Gloves.
FUTURE2 – Back to the Future.

#505D: KID GAMES (C)

MOUNTAIN – This adventure game was designed by grade school students, illustrated using Kidpainter, and programmed with Talespin. The game takes you inside a magic mountain where you'll have the opportunity to fend off a vicious dragon, pacify a giant spider, etc. in your effort to make your way through.
TELLTALE – This is the pd run–time program to run .TAL files generates with Talespin, the adventure creator from Michtron.
SDI – Stranded on a Desert Island offers you any of 10 characters with different skills and weaknesses. Choose a character, then use his special qualities to help him get through a series of unpleasant tropical experiences and reach the rescue ship.

#507: ADVENTURES

TADS – The Text Adventure Development System is a programming tool for building sophisticated, professional–quality text adventure games. The system consists of a compiler, a run–time module, a standard adventure definitions file, and the source to Ditch Day Drifter, a full sample game demonstrating the system's many features. Req 1 Meg of RAM.
DITCH – Ditch Day Drifter is a text adventure set at Caltech on its infamous Ditch Day. This game is a sample of what you can do with TADS.
DSD – Deep Space Drifter is a science–fiction text adventure of Epic Proportions. Find your way off the space station and explore the planet below. Visit the Swamp and the Caves. Defeat your mechanical foe and escape with your life. Written with TADS, the Text Adventure Development System, this game features a professional–quality command parser and many advanced features.

#513D: Text Adventures

DSENCHNT – Disenchanted, an interactive fantasy.
EB_CITY – El Bozo's City Out Of Bounds
KING – Once a King
SYSTEM5 – System 5

#525D: GAMES (C)

GRAN PRIX – auto race arcade game.

#532D: GAMES (C)

STARTREK – STOS variation of the Star Trek game. This game will NOT run on machines with TOS 1.4 installed!
VALGUS20 – Valgus V2.0, a 2–player version of the Tetris–clone game.
MINER – Maniac Miner lets you explore for underground treasures, but watch out for rock slides and other obstacles.

#533D: GAMES (C)

COLLAPSE – Collapse (V1.1) is a falling block game of the Tetris family but different. You must try to line up 3 or more block in rows vertically, horizontally, or diagonally. When this happens, block evaporate and columns collapse downward. The game speeds up a little faster so over all games are slightly shorter and more difficult, but bonus points are given for large numbers of block knockouts.
YAHTZE20 – YAHTZEE V2.0 is a slightly enhanced upgrade of YAHTZEE 1.0. I changed all game prompts from keyboard to mouse and added the system date to the player name for use in the high score file. This is an excellent 1–6 player game that faithfully recreates the classic game Triple Yachtzee.
JEOPARDY – Welcome to the PD color version of Jeopardy for the Atari ST. This program has been written and revised to give the players an excellent experience in testing their knowledge and a simulation of being a contestant on the real show.
VSQUARED – Valgus2, the sequel to Valgus, a pd version of Tetris. In VSQ, the 7 familiar Valgus pieces are back, but they are tired of falling straight down the screen! Instead, they will come at you from all four sides of the 27x27 playing area.
PILEUP31 – PileUp V3.1, the latest version of this Tetris clone has several features and is compatible with TOS 1.4. 10 game levels, 2 skill levels.
STTETRIS – another Tetris clone

#534D: GAMES (C)

HACMANII – Pacman clone with lots of new features.

#535D: KID VIDEO GAMES (C)

KV_ADDUP – This is an animated math program for youngsters. Choose what operations (+,–,x,/) you want. Then choose the difficulty. Then begin!
KV_FONIC – This program introduces children to phonics. It includes 9 puzzles containing consonants (b,c,d...), blends (sl,sn,sm...) and digraphs (th,sh...). You can easily create your own puzzles or modify the existing ones.
KV_GEO_1 – Hypertext georgraphy, learn about the solar system.
KV_MATCH – Flip over squares to match baby and parent animals.
KV_ME1ST – Me First, V2.0, Interactive learning games/stories for children. Includes documentation and additional DATA files for extended play.
(C)**KV_ME2ND** – A sequel to the first program, this package contains an additional 24 stories.

#536D: KID GAMES (C)

RABBIT, SANTA CLAUSE, BURGER, CIRCUS, ROBIN

#537D: KID GAMES (C)

AIKEN6 – Entirely mouse–controlled. Makin' Aiken is an illustrated version of the silly kids' song "Aiken Drum." It has 8 verses in which Aiken's body parts are described (His hair was made of ____); the child selects a picture icon for the blank (green beans, brocolli, etc.). A picture of Aiken is progressively displayed. 3 choices for each of 8 parts make for many silly versions of Aiken.
KIDMIXPL – Kidmixup Plus is a kidprg by D.A. Brumleve (Basic Version) and Ph. van Rijthoven (Plus Version). The "plus" is that you can now add your own sequence files created with any DEGAS–compatible paint program. Three picture files by the authors (a total of 27 sequence themes) are included with this program.
PRFMATCH – Originally a commercial program, Perfect Match is now shareware. For 1 to 4 players, you can choose from 8, 16, or 24 cards. Select a question, cards are shuffled and dealt. Player selects two cards with mouse and tries to find a match. Turn continues as long as player keeps finding matches. Game ends when all matches have been discovered or the timer runs out in 1 player game.
LET_HUNT – learn alphabet by matching letters on the screen.
ENCH_FOR – Enchanted Forest, a variant of both Shutes and Ladders and Candyland, suitable for children 3 and above.

#539D: GAME DEMOS (C)

FLIMBO – Flimbo's Quest. This is a one level playable demo of Flimbo's Quest, a platform type game with excellent graphics and parallax scrolling.
DEFEND – Defender II, a one level playable demo. The complete game gives you a choice of playing the original Defender, the original Stargate, or the new Defender II. Unless you are an ace arcade Defender player, this playable demo will give you hours of playing pleasure.
RALLY – Toyota Rally. This is a one course playable demo of probably the best driving/racing game yet for the ST. It features excellent graphics and digitized sound. Even the weather turns bad as it starts to snow when you begin the demo.

#540D: GAME DEMOS (C)

SIMULCRA – Demo of a very cool UK game called Simulcra. Arcade type, you are this "tank" and you drive around a "3–D" map, blowing things away and getting enhanced weapons.
SPELLDEM – This is a one level playable demo of Spellbound by Psygnosis. It is a platform/collecting type game. Nice graphics!
9LIVES – This is playable one level demo of 9 LIVES. It is a platform type game with excellent graphics and animation. Not an easy game!

#542D: KID GAMES (C)

CREBUS4 – Rebus Writer allows the user to design and print rebuses, a kind of code in which pictures and symbols are used to represent words. Both color and mono versions provided. Note: the folder MREBUS4 has a monochrome version of this program.
WUZZLERS – This game is a picture/puzzle game somewhat like hangman. You are shown a number of spaces representing the letters in a mystery word.

Choose from the letters of the alphabet to guess the letters in the word. With each incorrect guess, part of a picture depicting the word is displayed. You must try and guess the word before the entire puzzle picture is revealed.

KIDSTORY – Remember "Little Red Riding Hood"? Here is that story with an entirely new twist. The child selects a number of different objects before the story starts. These objects will then customize the story into a very different tale! Kids will have a lot of fun creating their "own" stories. A different story is created every time the program is run!

#543D: GAMES

MIDIMAZE – MIDI–MAZE II, V1.5, is similar to the original MIDI–MAZE program that allowed up to 16 players to play against each other by linking their Atari STs via the MIDI ports. (C/M)

AKS – Alfreds Kistenlager Schiebereien, provides you with hours of challenging puzzles. The rules are simple: With the arrow keys, you control a worker who must shove barrels around a warehouse and place them in the proper locations.(M)

DREISSIG – a high–quality game of skill and judgment distributed as shareware. 'Dreissig' is the German word for the number 30. Dreissig is a dice game for 1–6 players. In the single–player mode the computer takes the role of the opponent.(M)

#547D: KID GAMES (C)

PUZZLE – Electronic Jigsaw Puzzle, use program to scramble (in 25, 64, or 100 pieces) your favorite Neo, Degas, or Tiny pictures. Includes 14 Tiny pictures selected for their puzzle playability.

7KIDS –The Wolf and the Seven Kids provides a different adventure each game.

BARNIMAL – A listening guessing game for the very youngest computer users.

#550D: GAMES (C)

STRABBLE – similar to crossword game Scrabble, although, in this version, you can play against the computer. (C/M)

NOVA – brilliant shoot–'em–up arcade game, similar to Galaxian.

#557D: GAME DEMOS (C)

HERO! – Game features hundreds of items and creatures, and over 200 rooms to explore. Other features are multiplayer mode, modem play, macro language customization, full color backgrounds, real time battle system, and a rich and complex character development facility, text screens as well as graphics, many spells, and other features to numerous to mention here. the demo comes with excerpts from the game documentation, and ordering information is available at the end of the document file.

#558D: GAMES (C)

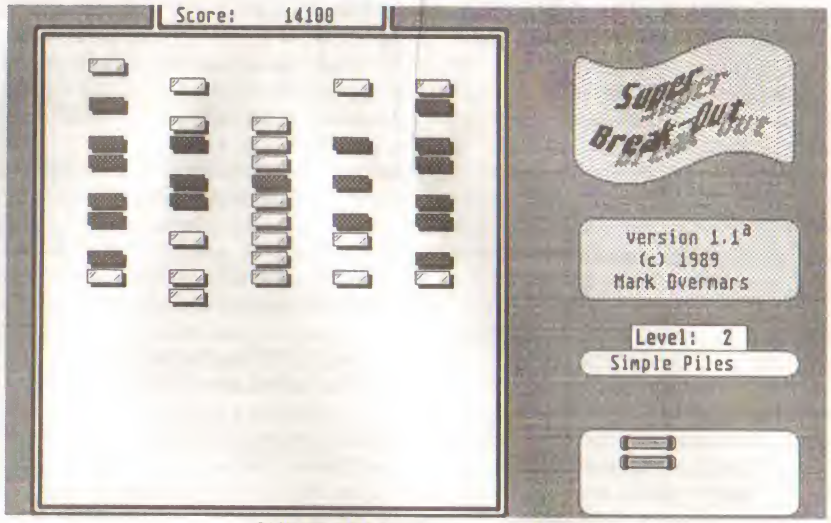
AMAZE – Clear the playground from the squares, but don't jump aside.(C/M)

DRKCASTL – Dark Castle, a board game that requires at least 2 players, with a maximum of 4.

DUNG306 – V3.06 of Daniel's Dungeon! a maze game that you must graduate to win the game! This is playable demo mode and password protected to get FULL mode. (C/M)

REACTION – This game takes after the Arcade game ATAXX and is very hard to beat! Great strategy game! STE and ST Compatible. Should run on 512K ST with no problem.

SUPRMIND – Super Mastermind. You use logic to determine the computer's hidden code.



SUPER BREAKOUT from CN #391

#560D: OTHERWUZ (C)

OTHERWUZ – This program will not run from a hard disk. Wuzzlers is a hangman game with a twist: a picture hint is displayed with each wrong answer, thus increasing the chances for success. This file contains program and a data file with nearly 50 picture/word puzzles for the game. The .PRG file is the same as that included with CN library disk #542, but the pictures on this disk were designed by German computer artist Juergen Reichenwallner. Words appropriate for 2nd grade through adult.

#563D GAME DEMOS (C)

BUGST – This is a one level playable demo of Bug Bash. You must clear the level of all trash. Collect trash by pulling down on the joystick and pressing fire. Only one piece of trash can be carried at a time. Fly over the trash can to drop trash. Use your insecticide gun to kill enemies and watch out for the end of level guardian!

MSTDRIVE – This is a 2–level playable demo of Jupiter's Masterdrive. When the light turns green, accelerate by pressing fire. You can shoot the opposition by pushing up on the joystick. It is a three–lap race in all. On the second level, collect the ten bonuses before your competitor. Use the radar at the base of the screen to plan your journey.

POND – This is a one mission playable demo of James Pond. You must gather 8 gold bars from the wreck of a large, sunken ship. You must take each bar to the waiting row boat somewhere on the surface of the sea. Be careful though, as the shipwreck is lodged in a deep, dark underwater cavern with many monsters and meanies out to get you. Excellent graphics and gameplay!

CAPTIVE – Playable demo of Captive. An excellent futuristic game with the Dungeon Master mouse–view type gameplay. See the Captive topic for descriptions on game play and so on.

#569D: AIR WARRIOR

(c) 1991, Kesmai Corporation. This version of Air Warrior has undergone very stringent testing between the different computers (Macintosh, Atari ST, Amiga, and IBM PC) to ensure that the flight performance of the different planes is the same.

#574D: GAMES

SEASIDE – Here is a terrific which, like Concentration, will test your memory against that of your opponent. Try and match up the sea creatures and make pairs to gain points. Many game variations included.

DRACHEN – V2.0, is derived from an old game from China. 144 tiles are built up on 5 levels on the playing surface. The goal is to remove all the tiles. To that end, one may remove any two matching tiles, as long as each of them is free to move either to its left or to its right [that is, there is no other tile "in the way" of the movement of each matching tile].

COLAWARS – By David Jolley, requires joystick. Double–click on COLAWARS.SCK in GEM desktop if you have booted from this disk.

SPLATTER – Patterned after "Reaction," provides more of an alternative for more players with a few more options of play due to the increase in players. Try and outwit your opponents by being the person with the most tiles at the end of the game.

SPACEJET – simple arcade game with space theme.

#575D: GAME DEMOS

VALGUS2 – V3, in VSQ, the seven familiar Valgus pieces as back, but they are tired of falling straight down the screen! Instead, they will come at you from all four sides of the 25x25 playing area. In V3, the graphics are much better; the pieces are larger and more colorful; sound is much better. New, more challenging rounds have been added.

MAH–JONG – This demo copy of the Mah–Jong game, a Shanghai clone, contains a solvable example of each of the layouts. The complete game will provide an infinite number of games, all different! The purpose of the game is to remove all the blocks, by pairs, in 'record' time.

PIPEMANA – Easy! Stick a joystick in port 2 and play. Three levels are playable up to a certian time

limit. Place the pipes around the screen to make the maximum pipe length for the ever–flowing flooz coming down the pipe. (C)
WORDBID – Here is a fun and educational game. Bid on letters as the word platform decends closer to its doom. Graphics, sound, color.
BJP3DEM – This unique program simulates a real casino environment. Explore every aspect of the game of blackjack. More than just another game, this program can show you why you have lost in the past and teach you to WIN in the future.
DEBUT – A short "sneak preview" of this new planet simulation game. Not playable, only teases you with what is coming.

#582D: GAMES (C)

DAMOCLES – Damocles is the latest release from Novagen and it is a brilliantly absorbing game with high speed, solid 3D graphics. Erin is the fifth planet in the Gamma solar system, and in a few hours it is going to be smashed to pieces by the giant comet, Damocles. Your task is to fly to the planets in the solar system, search any cities you discover for objects and clues and utimately, save Erin from impending destruction. With nine planets and 19 moons there is much to explore and many places to visit.
LLAMATRON – An excellent Robotron–type game from Europe, This is the 1 MB version.

#592D: MONO GAMES

BACKGAMM – Online backgammon for the mono monitor lets you play over the phone lines with a friend and a modem. You can also play against the computer or setup custom games. Freeware.
BLOECKE – This is a 3D Tetris game in German. Don't worry, you can figure out the comands easy enough. You need to use the arrow keys to direct the 3d blocks. Also you can select what rate of speed you want them to go at. (C/M)
CRISCROS – CrissCross is a hybrid of GO, GOMUKU and OTHELLO. Great for kid's! Incorporates the ZeST interface for a NeXT desktop look and feel.
DAME – Renaissance (DAME) is a German game of checkers. The game is inGerman but if you know how to play checkers, playing the game is as simple as pointing and dragging your piece to the square you want to move to. You can play against another person or the computer. You can even autoplay to see strategic moves. This file contains an editor as well. Quite a nice game.
GOBANG – A game of GOMOKU brought to you by B.E.WARE.
POKERSQR – If you like solitaire and you enjoy poker, then you're gonna love Poker Squared. Runs on any ST. Uses the ZeST interface for the NeXT desktop look. Freeware.
PONG – Pong is a game that gives you a choice between handball or breakout. Requires a joystick, which adds a difficulty that you do not have with the mouse.
SBREAK – This is a super breakout game that brings you through various levels allowing you to capture different options such as guns, a larger paddle, multiple balls and much much more.
ZESTPOKR – Here is another demo using the ZeST interface (NeXT look–a–like). This game gives you draw poker, high card and a one armed bandit. Freeware.

#593D: GAMES (C)

BLOECKE – This is a 3D Tetris game in German. Don't worry, you can figure out the comands easy enough. You need to use the arrow keys to direct the 3d blocks. Also you can select what rate of speed you want them to go at. (C/M)
BOING – An excellent arcade game. It is very addictive and has excellent graphics.
DMLTN__13 – This is Demolition Man 1.3, a new version of the puzzle game by Clayton Walnum. Changes in this version include: squares can be marked with question marks as well as flags; Degas–format screen has been replaced with smaller data files; Program no longer bombs when graphic data file is missing. One of those games that takes a minute to learn but a long time to master, Demolition Man is great for a quick diversion. (C/M)
FOOTBAL – Football, by Jeff Parkhurst. Try and beat the computer. The play is nice even though you are dots on a screen.
SNOWBALL – DC Snowball Fight is a two–player game that simulates the thrills, chills and spills of the popular winter pastime children all around the world enjoy when the Nintendo is broken. ST, STe and TT compatible.

#620D: GAMES (C)

BEYOND – Beyond is a Tetris spin off. You must match like parts rather than build lines. The program is shareware. Demo has limited functional levels.
JEPARDY3 – Here it is ... the final version of Jeopardy. This pd program now includes a dispute key so you never get penalizied for an answer which is correct. Includes 4 new games to play. This is the ultimate game for Jeopardy lovers.
MILBORNE – It's a race to the finish in this game based on the French card game of Milborne. You and the computer take turns drawing cards in an effort to get to the finish line first. Throw an obstacle in the way of the computer or deal with the obstacles he throws your way. The first player to reach ›5,000 miles wins.
MONOPOLY – Here is the classic board game. It is the same as earlier versions, however, it has been recompiled with GFA Basic 3.05E and should now run fine on the TT as well as the ST machines.
WARSHIPS – Fighting sail recreates the ship–to–ship combat of the Napoleonic period. This single player game has nice graphics and realistic combat options. Based partly on Avalon Hill's "Wooden Ships and Iron Men."

#621D: OFFENDER (C)

This demo is provided courtesy of Missionware Software for your enjoyment. The game is fully playable, but limits the number of levels you can attain. TT Compatible.

#622D: GAME DEMOS (C)

AMAZE – This is a port of a neat maze demo that makes a great gee–whiz on high end workstations. It draws and solves mazes in a self–running random demo. You may also try to solve the mazes yourself and compare your score with the computer's solution. It makes for a fun demo and game combination. Runs on ST or TT.
AST__TUNL – Astro Tunnel is a low–res sprite master demo game by Chris Skellern. This game gives you an idea of what you can do with Sprite Master. You need the mouse and arrow keys to play this fast–paced game. Cooridination and quickness seems to be the key to winning.
DROMEPRE – This is a preview for a game very similar to M.U.L.E., a colonization/trading game that was never rewritten for the ST. Many have cried out for a version of this game, and Network 23 Software has answered ... almost. This is just a small part of the game Dromedary, which is currently being written. You must hunt skivits, tiny creatures who live in mountains on a barren planet. Sorry, no TOS 1.4!
MAHJONGG – Good example of this classic puzzle game. This file contains solvable layouts of the first five games, instructions, history, odds of winning by non–strategic play (14 in 30,000 for the hard one). The odds improve if you think about the moves.
NOIDS__75 – This version of NOIDS supports ALL ST family computers. Noids is a breakout type game for the TT and MegaSTE. Shareware.
WARZONE – This is a fully playable one level demo of Warzone by Core Design. It is a Commando–type game with excellent graphics and lots of frantic action. Various weapons can be aquired along with energy and power ups. Also implemented is a two player simultaneous play option!

#623D: MONO GAMES

CATCHME – Catchme is a game where you use the mouse to catch cards that say catchme before another card appears. Speed increases as you succeed with each board. Germam but easily understandable. ST/Mega/STe, TT/ST mode.
FRUSTRAT – Frustration! is a word search game for two people. Kind of like "BOGGLE" with a few twists. Three levels of play make it great for kids! Freeware.
MANIPULR – Manipulator is a German program in German but you can do a great deal with it without understanding a word of German. It seems to be able to manipulate picture files in various ways. It needs to be tested further in depth to learn the full depth of its capabilities. ST, Mega, STe, TT/ST mode.
PAIGOW – Here is the ST version of Pai Gow poker as played in Las Vegas! Challenge the computer or play a friend over the phone line using your modem. freeware.
SCHIEBST – Remember those games that you have to manipulate the squares to get them in correct order with only one missing square? Well this one is in German and if you look to the right of the screen, it will tell you the order you must manipulate the squares to. It is a twister. It is in German but can be played without knowing German. Does not work on TT. Works on ST, STe.
WUNDER – Wunder is a German program that is actually quite fun for young and old alike. It allows you to take its graphic and cut the people in half only to move them to another area where they will fit. This is achieved by a click of the mouse button. German. Works on ST, STe, and TT/ST mode.

#624D: GAME DEMOS (C)

BOSTONBC – This program is a playable demo of the game "Boston Bomb Club."
REPEAT – Desktop Repeat is a game in an accessory! Follow the sequence of sound and color just

like the SIMON game. Great for kids. You can play right on the desktop or from within running programs s! freeware.
CRACKED – limited demo version of arcade game
TIMEBAND – this demo version of Time Bandits displays only a fraction of the many different advent tures you will encounter on the commercial version.
CHESS – non–playable demo of 3D Chess

#628D: OMEGA 0.75!

This game is the latest all ASCII Role Playing Game (RPG). Has a lot of improvements over the others such as NetHack, Larn, Moria, etc etc. Has really neat maps, multiple classes, jobs, a huge landscape to explore, five gods, in depth magic/clerical type system! Can possibly be used as a BBS doorway if you have the RAM. Works on a SS floppy with disk swapping, but a HD is recommended. One meg or more needed!

#646D: GAMES (C)

NOIDS – V1.0 of Noids (like Breakout) and MkNoids, the game creator. Works best in ST Low, but the game will also run in TT Med. Shareware.
DMLTN2 – Demolition Man V2.0, features three levels of difficulty, as well as an x–ray button that gives you a quick look at everything on the board. If you can beat the Agony level, you're definitely a demolition expert!
3__SHOOTS – Low resolution required, any ST/STe. Three joystick–controlled games include a spaceship battle (GALACTIC), a rescue mission with a military theme (RIVER), and a Duck Hunt clone (HUNTING). Great for kids.
SORRY – Electronic version of board game.

#647D: GAMES (C)

Several color arcade games construction using GFA Basic and GP–EDIT. The games are fully playable and illustrate the power inhereint in the GP–EDIT package.
BOBBLE – similar to COLLAPSE, falling blocks, but not at such a frantic pace.
MSPAC – the familiar Ms. Pac–Man game.
MULTI – MultiGame (This is actually five games in one, all are great fun: WORM, FIRECOP, MEGAPEDE, BREAKOUT, and SETRYS.)
STSQUARE – ST Squares, based on the Hollyw wood Squares game show. A two–player game for both adults and young adults.

#655D: GAMES

21 – This is a blackjack game for one player against the dealer. The rules are RENO Casino style. Totally mouse driven.
CAMELS – From the author of Llamatron, Jeff Minter, here's another whacko shoot–em up, a conv version of an old 8–bit game. The enclosed text file explains the different versions of the game.
AMMOTRAK – A very good high–speed graphic game where you drive a rocket sled type vehicle. Shoot at targets then drive thru them to gain speed and fuel This plays excellent, (No TT.)
SEEKER – Gold Seeker, going beyond Lode Runne er, this game has moveable trap doors, exploding bombs, diagonal slides, moving sidewalks, control lable force fields, and an elevator. Contains 32 screens from simple to fairly difficult.

#656D: GAMES (C)

TRIPLES – A game of matching three–of–a–kinds and solving rebus type puzzles. from 1 to 3 players. 1 MEG req. Concentration Rebus puzzle type game.
ROBOTREP – Robot Repairs Demo, enter Robot in minaturized probe andcollect deadly virus crystals.

#675D: GAMES (C)

BLOX – a variation of the original Tetris. In Blox, the blocks are hexadecimals coming from all kinds of diff ferent directions.
KATRIX – In this Tetris clone variation, the blocks are all falling down, but there are a variety of colorful options.
OTRPLACE – The Other Place game is entirely diff ferent. Check out the docs in the OTRPLACE folder.

#690D: Star Trek – The Klingon War

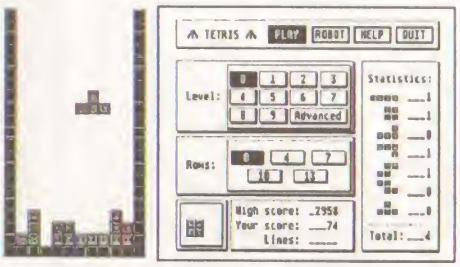
The Klingon War simulates a battle between the USS Enterprise and a Klingon invasion force. This game requires an ST with at least 1 meg of RAM, color monitor, and a double–sided disk drive.

#691D: GAMES (C)

FLIPPED – from the cover disk of Atari ST User (Mar 92), here is a fun colored tiles game with 100 levels.
POKDICE – Poker Dice is an excellent game where you play poker by the roll of a die.
ROULET17 – Roulette is the standard casino game.
COM__YATZ – Computer Yahtzee, GFA compiled, can be played with four players.

#697D: GAMES (C)

EUCHRE – pits you and computer partner against two computer opponents.
5KIND – 5–of–a–Kind allows one or two players to compete in a yahtzee type game.
MUTCATER – Invasion of the Mutant Caterpillars arcade game demonstrates the new STOS 3D prog gramming language.
BANG – GO BANG! figure out where the exploding mines are hidden on a grid. (this game also runs in mono.)
COLORQV2 – Color Quest, colorful "SIM MON"memory game clone; play against the comput ter or a friend.
ASTEROID – Clone of the popular 8–bit classic space arcade game.



Tetris from CN #438.

#703D: Ellemouse and More (C)

ECCB__6 – Here is ver 6 of the The Ellemouse Complimentary Coloring Book for young children. This version fixes some bugs in the program, and adds the feature of children's ANIMATION. Color the picture and then animate the action by clicking on the animation box.
E__PRS – This freeware game is based on the old game Paper, Rock, Scissors, but with a new ingredie ent added, Ellemouse. The game is for young child dren and encourages use of the keyboard. Addictive game of chance played with animated Ellemouse.
PLAYSPEL – Once a commercial program, B.Ware of the UK has now released Play Spell as shareware. For a small fee, users can acquire full documentation and additional data disks. This is a joystick–controll led platform arcade. Children maneuver a little man to collect letters to form basic words. Joystick in Port 1 (joystick port). List of words cannot be changed.

#709D: GAME DEMOS (C)

POPULOU2 – Here is a DEMO of Populous 2 for you to check out. One of the best in God–playing games. TT Compatible in ST LOW.
CONQUER – Here is a demo of Conquorer, a tank simulator originally from Rainbow Arts will be re–rel leased RSN. Test your abilities at Tank simulations. Awesome 3D Graphics.
PENGUIN – From the cover disk of the April 1992 ST Format: Penguin! They're small, look like they're wearing tuxes and they need to get through this maze. So it's up to you, pardner, to round up these suckers. Remember, it's all in the mouse action! TT Compatible.

#710D: RPG GAMES (C)

QUEST – Loosely based on Robert Asprins "Myth" series. Become Skeve or other characters and rescue Tanda from Istvan! Lots of fun!
PACISLND – Pacific Islands is a state of the art tank simulator. To get it going double click on TY2.TOS inside the folder and prepare for battle.
ROBNHOOD – This folder contains Barry Kolbe's Robin Hood, a shareware, action/RPG similar to Omn nitrend's Paladin. People who pay the shareware contribution will receive a scenario builder along with the non–demo version of the program.

#711: GAMES (C)

HURRY__V1 – Hurry! Place 36 shapes into their proper slots before the bomb goes boom. Sounds easy? NOT... STe compatible. Said to be "one of the most frustrating and addictive games ever published in STart..."
MARBLEV1 – Marbleous. V1.0. Tired of dull vers sions of Master Mind? Try this one out. Find the sec cret code before it's too late.
COPSNROB – Cops and Robbers, written by Kevin and Larry Scott and compiled in GFA Basic. In this game you and your opponent are both trying to get the upper hand. As the robber you must find and rob five banks in the city. As the cop, you must patrol your city looking for the robber.
SNOFITE – In this action–arcade, two–player game. You and your opponent must battle it out in a terrifying snowball fight.

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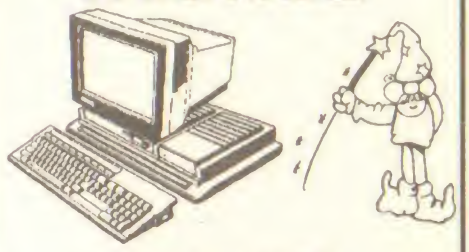

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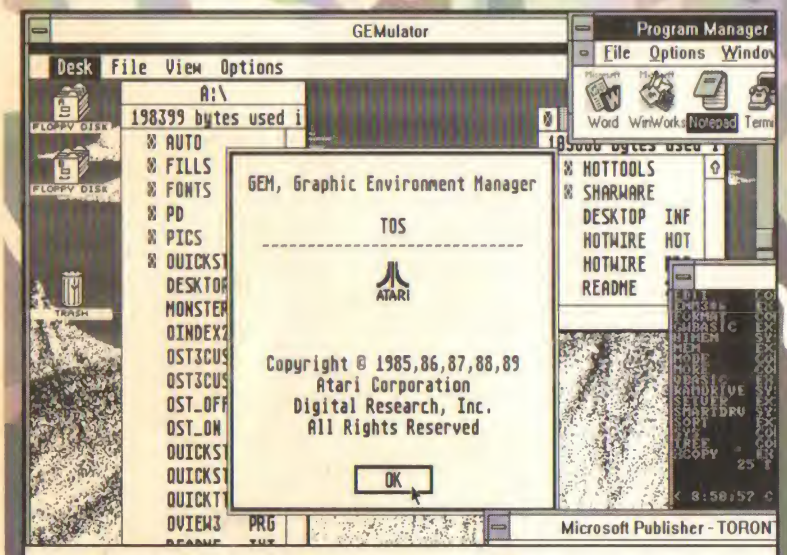

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